

V.—Notes on Indian RHYNCHOTA; HETEROPTERA, No. 4.

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DIV. NEZARIA.

En. Hem. v, p. 63 (1876).

a. b. c. as in *Hoplistoderaria* (p. 66).d. as in *Catacantharia* (p. 70).

e. Entire feet, or at least the geniculæ, pale, flavescent or virescent, rarely pictured or sprinkled black: antennæ rarely to a very great part, black: rostrum never entirely black: membrane rarely blackish.

f. Body greenish, very rarely incarnate, above entirely densely, or very densely, punctured; punctures concolorous: membrane colourless: venter without a furrow, second segment spinose or very distinctly tuberculated, tubercle higher than the mesostethium which is not elevated: margins of pronotum neither levigate nor, unless at the very extremity of the lateral margins, very slightly reflexed: tibiæ above flattish or sulcated: dorsum of abdomen greenish, or, in dead specimens, flavescent, very rarely anteriorly black: anterior lateral margins of the pronotum, never, unless very narrowly, and then more broadly beneath than above, black.

Genus ACROSTERNUM, Fieber.

Eur. Hem., p. 79, 331 (1861): Stål, En. Hem. v, p. 63, 90 (1876).

Broad, oval: head semioval, broadened at the eyes, without a black spot or small line beneath before the eyes at the antenniferous tubercles; frontal callus continued through, anteriorly narrower: eyes robust, ocelli large: jugular plates low, margined, anteriorly scarcely lobulate, as long as the base of the rostrum: pronotum transversely sexangular, flatly convex, margin slightly carinate, straight; corium exarcuate; venter rather densely and distinctly punctured, levigate in the middle.

225. ACROSTERNUM GRAMINEUM, Fabricius.

Cimex gramineus, Fabr., Mant. Ins. ii, p. 295 (1787); Ent. Syst. iv, p. 120 (1794); Syst. Rhyng, p. 175 (1803).

Cimex seladonius, Fabr., Ent. Syst. iv, p. 114 (1794); Syst. Rhyng. p. 170, (1803).

Acrosternum gramineum, Stål, Hem. Fabr. i, p. 31 (1868); En. Hem. v, p. 90 (1876).

♂, ♀. Body small, entirely green, immaculate; above a little more obscure, beneath a little paler (*C. gramineus*, Fabr.). Head flavescent, antennæ fuscous at the apex: pronotum virescent, anteriorly flavescent: scutellum flavescent, with a pair of white dots at the apex: hemelytra

virescent with a flavescent streak before the margin: wings white: body virescent (*C. seladonius*, Fabr.). Above yellow-virescent, beneath with antennæ and feet sordid yellow-whitish: second and third joints of antennæ subequal in length: scutellum with a small subcallous whitish spot on both sides, at the apex: extremity of the apical angles of the abdominal segments, black, somewhat acutely prominulous (*Stål*). Very closely allied to *A. incertum*, Sign., differing only in the points noticed. Long, 9; broad, 5 mill.

Reported from India: Utakamand and Calcutta.

Genus NEZARA, Am. & Serv.

Hist. Nat. Ins. Hém. p. 143 (1843); Stål, Hem. Afric. i, p. 82, 192 (1864); Ofvers. K. V.-A., Förh., p. 530 (1867); En. Hem. ii, p. 40 (1872); v, p. 63, 91 (1876). Includes *Rhaphigaster*, Dallas, pt. List Hem. B. M. i, p. 274 (1851); Walker, Cat. Het. B. M. ii, p. 356 (1867).

Body oval or obovate: head flat, ovate, rounded at the apex, lateral margins somewhat sinuated, lobe continued through in the middle: first joint of rostrum not extending posteriorly beyond the bucculæ, sometimes somewhat shorter than the bucculæ: first joint of the antennæ barely reaching the apex of the head: anterior lateral margins of the pronotum rarely very slightly reflexed or somewhat callous, anterior margin sinuated between the eyes, behind the eyes on both sides truncated, very rarely slightly callous in the middle: frena continued beyond the middle of the scutellum: mesostethium carinate: venter tuberculate or spinose at the base: head beneath, before the eyes at the antenniferous tubercle, marked by a black spot or small line: tibiæ above very often furrowed.

226. NEZARA VIRIDULA, Linnæus.

Pentatoma smaragdula, Leon Dufour, Rech. p. 157 (1833).

Nezara smaragdula, Am. & Serv., Hist. Nat. Ins. Hém. p. 144 (1843); Fieber, Eur. Hem. p. 330 (1861).

Rhaphigaster prasinus, Dallas, List Hem. i, p. 274 (1851): excl. syn. Linn.

Pentatoma (Nezara) smaragdula, Guérin, Sagra Hist. Cuba, Ins. p. 373 (1857).

Nezara prasina, Muls. and Rey, Pun. Pent. p. 295 (1866): excl. syn. Linn.

Nezara viridula, Stål, Hem. Afric., i, p. 193 (1864); Hem. Fabr. i, p. 31 (1868); En. Hem. ii, p. 41 (1872); v, p. 91 (1876); Mayr, Reise Novara, p. 67 (1866); Dis-tant, A. M. N. H. (5 s.), p. 45 (1879); Biol. Cent. Am. Hem. p. 78 (1880): White, Ent. Mon. Mag. xiv, p. 276 (1879).

Var. *a.*;—*Cimex smaragdulus*, Fabr., Syst. Ent. p. 711 (1775); Spec. Ins. ii, p. 354 (1781); Mant. Ins. ii, p. 292 (1787); Ent. Syst. iv, p. 109 (1794); Syst. Rhyng. p. 167 (1803); Gmelin, ed. Syst. Nat., i (4), p. 2153 (1788); Wolff, Ic. Cim. ii, p. 56, t. 6, f. 53 (1801). Madeira, India.

Cimex spirans, Fabr., Ent. Syst. Suppt. p. 533 (1798) : Syst. Rhyng. p. 167 (1803). West India Islands.

Cimex viridissimus, Wolff, l. c., p. 55, t. 6, f. 52 (1801). India.

Pentatoma unicolor, *subsericea*, *leei*, *tripunctigera*, *proxima*, *chinensis*, *chloris*, *chlorocephala*, *propinqua*, and *berylina* Westw., Hope, Cat. Hem. i, p. 38-39 (1837) : from Java, India, Cape St. Vincent, Teneriffe, China, Sierra Leone, Brazil, and Puna respectively.

Rhaphigaster smaragdulus, Kolen., Mel. Ent. iv, p. 55 (1846).

Pentatoma plicaticollis, Lucas, Expl. Algér. Ins., p. 87; Hém., t. 3, f. 9 (1849). N. Africa.

Rhaphigaster subsericeus, Dallas, List. Hem. i, p. 275 (1851). N. Bengal.

Var. b. :—*Cimex torquatus*, Fabr., Syst. Ent. p. 711 (1775) ; Spec. Ins. ii, p. 353 (1781) ; Mant. Ins. ii, p. 291 (1787) ; Ent. Syst., iv, p. 108 (1794) ; Syst. Rhyng., p. 166 (1803) ; Gmelin, l. c., p. 2150 (1788).

Pentatoma flavicollis and *flavicornis*, Pal. Beauv., Ins. Hém., p. 185, t. 11, f. 4 (1805).

Rhaphigaster torquatus, Herr. Schöff., Wanz. Ins., iv, p. 100, t. 162, f. 447 (1839).

Var. c. :—*Cimex viridulus*, Linn., Syst. Nat., 10 ed., p. 444 (1758) ; Mus. Lud. Ulr. p. 172 (1764) ; Fabr., Syst. Ent. p. 710 (1775) ; Spec. Ins. ii, p. 354 (1781) ; Mant. Ins. ii, p. 291 (1787) ; Ent. Syst. iv, p. 109 (1794) ; Syst. Rhyng. p. 166 (1803) ; Gmelin, l. c., p. 2150 (1788).

Cimex hemichloris, Germar, Silb. Rev. v, p. 166 (1837).

Rhaphigaster orbis, Stål, Ofvers. K. V.-A. Förh., p. 221 (1853).

♂, ♀. Somewhat narrowly obovate ; varying in colour ; throughout densely punctured ; with a very obtuse, broad, levigate, ventral ridge : third joint of the antennæ at the apex, and almost entire 4—5 joints, brunnescent : extremity of anterior lateral margins of the pronotum, also margin of venter, pale stramineous : extremity of apical angles of the segments of the abdomen and a minute spot or small lower line on head before the eyes, black (*Stål*). Long, 12—16 ; broad, 6—9 mill.

Var. a. :—First joint of antennæ green, fuscous at the apex ; second fuscous, green at the base ; third entirely fuscous : head rounded, entire, eyes testaceous : margin of pronotum flavescent : scutellum green with three very minute, yellow, basal dots ; abdomen greenish, ventral line flavescent : feet virescent (*C. smaragdulus*, Fabr.). Above broadly greenish ; scutellum immaculate, a little more obscure at the base : 3—4 joints of antennæ at apex and entire last joint, purple (Wolff, l. c.). Westwood's species vary chiefly in the coloration of the antennæ.

Var. b. :—Above green ; head and margin of pronotum anteriorly, flavescent or sordid stramineous : antennæ variegated rufous and green (*C. torquatus*, Fabr.). Green : anterior half of head and thorax, three or five spots at the base of the scutellum, and the margin of the abdomen, yellow (*Herr. Schöff.*).

Var. c. :—Above sordid stramineous : two basal spots on the head,

three anterior spots on the pronotum, three anterior spots and apex of scutellum, also spot behind the middle on the hemelytra, virescent.

For the full synonymy of this remarkable cosmopolitan insect, reference may be made to Stål (E. H. ii, p. 41) or Distant (l. c.). It is found throughout North and Central America, and as far south as Cayenne, in all Europe, all Africa including the adjacent islands, Corea, Japan, China, India, the islands of the E. Archipelago, Australia, and New Zealand. The Indian Museum possesses specimens from almost all parts of India.

Div. HYLLARIA.

a. b. c. as in *Hoplistoderaria* (p. 66).

d. as in *Catacantharia* (p. 70).

e. as in *Nezaria* (p. 118).

f. Body varying in colour, sometimes entirely virescent and adorned with concolorous punctures, if so, the anterior and anterior lateral margins of the pronotum are levigate, elevated or callous, or the head not, unless very remotely and finely, punctured, or the mesostethium elevated and not lower than the basal tubercle of the venter, or the tibiæ obtusely rounded, or the venter furrowed, or the anterior lateral margins of the pronotum black: dorsum of abdomen rarely greenish, even in greenish species, generally croceous, rufescent or black.

g. Venter without a furrow: tibiæ above generally margined or furrowed: lateral angles of pronotum produced in a long, acuminate, spiniform process: head without black points arranged in several longitudinal rows.

Genus SABÆUS, Stål.

Ofvers. K. V.-A. Förh. p. 513 (1867); p. 632 (1870); En. Hem. v, p. 63, 92 (1876).

Body obovate: head moderately inclined, gradually narrowed forwards, slightly sinuate on each side before the eyes; tylus and juga of equal length; bucculæ continued through, slightly elevated; ocelli rather near the eyes; rostrum extended somewhat behind the last coxæ, first joint on a level with the bucculæ, second joint scarcely longer than the third; first joint of antennæ as long as, or barely extending beyond, the apex of the head, second joint shorter than third: pronotum moderately declined before the middle, anterior margin scarcely elevated, anterior lateral margins obtuse, basal margin straight, basal angles spinosely produced: scutellum moderate, somewhat narrow at the apex, frena extended somewhat beyond the middle of the scutellum: apical angle of corium rounded: mesostethium distinctly carinate; metaste-

thium not elevated: odoriferous apertures continued in a furrow that passes into a ridge: extremity of angles of abdominal segments prominulous; second ventral segment prominulous, in the middle at the base, in an obtuse tubercle: tibiæ rounded, above convex, only towards apex obsoletely flattish or subsulcate (*Stål*).

227. *SABÆUS SPINOSUS*, Dallas.

Rhaphigaster spinosus, Dallas, List Hem. i, p. 278 (1851).

Rhaphigaster humeralis, Dallas, List Hem. i, p. 278 (1851); Walker, Cat. Het. ii, p. 364 (1867).

Sabæus spinosus, Stål, Ofvers. K. V.-A. Förh. p. 632 (1870); En. Hem. v, p. 92 (1876).

♀. Above green, very thickly and rather coarsely punctured: pronotum with the lateral angles produced into acute spines: membrane transparent, colourless: margins of the abdomen with a small black point at the posterior angle of each segment: rostrum pale yellowish green, with the apex of the last joint, black: antennæ with the two basal joints, green; the third with the basal half green, the apical half black (*Dallas*). Long $16\frac{4}{5}$; humeral breadth, $12\frac{1}{2}$ mill.

Reported from Philippines, Assam.

Genus *HYLLUS*, Stål.

Ofvers. K. V.-A. Förh. p. 513 (1867); En. Hem. v, p. 63, 92 (1876).

Body broadly obovate: head much inclined, slightly sinuate on both sides before the eyes, thence somewhat narrowed, rounded at apex; tylus scarcely longer than the juga, lateral margins somewhat obtuse; bucculæ continued through, moderately elevated; ocelli near the eyes: rostrum extended somewhat behind the last coxæ, first joint on a level with the bucculæ, second joint longer than the third; first joint of the antennæ not reaching the apex of the head, second joint shorter than the third: pronotum rather declined anteriorly, anterior margin narrowly and distinctly callously elevated, scarcely truncate behind the eyes, anterior lateral margins very obtuse, convex, basal margin very broadly somewhat sinuate, lateral angles spinosely produced: scutellum somewhat short, almost equally broad and long, narrow at the apex, frena extended beyond the middle of the scutellum: extremity of apical angle of the corium rounded: base of venter unarmed, neither spinose, nor tuberculate: mesostethium distinctly carinate: apical angles of the abdominal segments acutely very slightly prominulous: tibiæ furrowed above (*Stål*).

228. *HYLLUS FLORENS*, Walker.

Mormidea florens, Walker, Cat. Het. ii, p. 263 (1867).

Hyllus ceruginosus, Haglund, Stettin Ent. Zeit. xxix, p. 160 (1868).

Hyllus florens, Stål, En. Hem. v, p. 92 (1876).

Deep green, broad, oval, roughly punctured; under side and legs pale: head above ochraceous, bordered with black and sometimes with black sutures between the juga and the tylus which are of equal length: rostrum extending a little beyond the hind coxæ, tip black: antennæ black, slender, full half the length of the body; first joint green, not extending to the front; third longer than the second, shorter than the fourth; fifth as long as the fourth: pronotum smooth along the fore border; spines black, stout, acute, very long, very slightly ascending: scutellum with a round pale yellow apical spot: abdomen beneath with a pale luteous disc and with black marginal spots: legs slender; tarsi luteous: membrane brown. (*Walker*). Body long, $8\frac{1}{2}$ mill.

Reported from Sumatra, Malacca, Siam, Burma.

Div. *PLAUTIARIA*.

En. Hem. v, p. 63, 64 (1876).

a. b. c. as in *Hoplistoderaria* (p. 66).

d. Lateral angles of the pronotum generally not, or rarely very slightly, prominulous, not acuminate, rarely strongly produced and acuminate, if so, the head is furnished with black punctures arranged in parallel longitudinal rows.

e. Venter generally tuberculate or spinose at the base, the tubercle touching, or somewhat so, the elevated mesostethium; spine, when present, long and depressed; mesostethium not lower than the basal tubercle of the venter when present: ridge on mesostethium posteriorly sometimes either amplified or thickened hindwards: tibiæ above flat and margined or distinctly furrowed: third joint of the rostrum sometimes longer than the second.

f. Head moderate, not, or not so strongly, impressed between the eyes and the ocelli: corium and scutellum rarely somewhat equal in length, and frena rarely shorter by half than the scutellum, if so, the ventral spiracula and the space around them are black: basal tubercle of venter absent, or not extended in a spine.

g. Entire body or the greatest part virescent, rarely incarnately virescent: frena extended beyond the middle of the scutellum: the anterior and the anterior lateral margins of the pronotum not, or only slightly, callously elevated: metastethium and basal tubercle of the venter equally highly elevated, the latter touching, or somewhat so, the

metastethium : second and third joints of the rostrum equal, or somewhat so, in length, the third joint never longer than the second : ventral spiracula generally concolorous, very rarely black: tibiæ above narrowly and slightly sulcated, or somewhat so. (*Stål*).

Genus PLAUTIA, Stål.

Hem. Afric. i, p. 82, 191 (1864); Ofvers. K. V.-A. Förh. p. 514 (1867); En. Hem. v, p. 64, 92 (1876).

Body broadly obovate: head flat, rounded at the apex, slightly sinuated on both sides before the eyes, tylus about as long as the juga: rostrum produced a little behind the last pair of coxæ, first joint not extending beyond the bucculæ posteriorly, second joint a little shorter than the third: first joint of the antennæ not reaching the apex of the head, second joint never longer than the third: anterior lateral margins of the pronotum entire, not callous, anteriorly entirely callous, levigate, not or barely truncated on both sides behind the eyes: scutellum shortish, frena continued somewhat beyond the middle: mesostethium carinate: venter punctured, basal tubercle very obtuse, somewhat broad, slightly elevated, not somewhat compressed, very obsolete; metastethium less elevated: coriaceous part of the hemelytra beneath (costal limbus generally excepted) sanguineous, or more or less incarnate, above also generally more or less distinctly incarnate: tibiæ sulcated above. (*Stål*).

229. PLAUTIA FIMBRIATA, Fabricius.

Cimex fimbriatus, Fabr., Mant. Ins. ii, p. 295 (1787); Ent. Syst. iv, p. 121 (1794); Syst. Rhyng. p. 175 (1803); Herr. Schöff., Wanz. Ins. v, p. 63, t. 164, f. 505 (1839).

Pentatoma fimbriolatum, Herr. Schöff., Wanz. Ins. vii, p. 102, f. 768 (1844).

Pentatoma fimbriata, Dallas, List Hem. i, p. 251 (1851); Walker, Cat. Het. ii, p. 298 (1867).

Pentatoma crossota, Dallas, List l. c. p. 252; Walker, Cat., l. c. p. 300.

Plautia fimbriata, Stål, Hem. Afric. i, p. 191 (1864); Hem. Fabr., i, p. 32 (1868); En. Hem. v, p. 92 (1876); Distant, A. M. N. H. (5 s.) iii, p. 45 (1879); Trans. Ent. Soc. p. 415 (1883).

Small: antennæ pale, joints black at the apex: head, pronotum and scutellum green, punctured, immaculate: hemelytra greyish, with a median spot which almost forms a band, fuscous, exterior margin green: wings cinereous, spot at the base fuscous: beneath green with a median line, yellow: anus porrect, emarginate at the apex (*Fabr.*).

♂. ♀. *P. crossota*, Dallas, has head, pronotum and scutellum bright green, rather thickly and finely punctured with brown: eyes black

ocelli red : the head has a very short black line on each side in front of the eyes below the lateral margins : pronotum with a very slender, reddish brown line on the edge of each lateral margin, the lateral margins straight : scutellum with the margin of the apex whitish : coriaceous portion of the hemelytra red, punctured with brown, with the outer margin green, punctured ; membrane transparent, with a large brown cloud at the base, in which are two darker brown spots : wings transparent, with the principal vein red : abdomen above crimson, very thickly and finely punctured, with the lateral margins bright green : body beneath green, very thickly and finely punctured, except on the middle of the disc of the abdomen, which is yellowish, very smooth, and punctate ; lateral margins of the abdomen with a black point on the apical angle of each segment : legs green ; tarsi testaceous ; claws black : rostrum pale testaceous, with the tip black ; second joint considerably shorter than the third ; basal joint green, second pale greenish yellow ; third becoming fulvous towards the apex ; fourth and fifth fulvous, with the tips brown (*Dallas*). Long, 10—11 mill.

The dorsum of the abdomen varies testaceous, unmarked, or broadly with two black stripes: in a Chinese example it is almost entirely black or subviolaceous-black.

Reported from Java, Eastern Archipelago, Japan, China, Siam Malacca, Silhat, Assam. The Indian Museum has specimens from Java, China, Assam, Sikkim, Calcutta.

Genus ZANGIS, Stål.

Ofvers. K. V.-A. Förh. p. 514 (1867) ; En. Hem. v, p. 64, 93 (1876).

Differs from *Nezara*, in having the body less broadly obovate ; hemelytra above and beneath green ; membrane entirely colourless ; head generally less densely punctured ; venter aciculatedly subrugose, not punctured, basal tubercle very distinctly elevated, anteriorly angulated and somewhat compressed, reaching but not higher than the metastethium which is strongly elevated and generally sinuated posteriorly. Differs from *Plantia* in the narrower body, head and scutellum longer and the scutellum narrower at the apex.

230. ZANGIS BERYLLUS, Fabricius.

Cimex beryllus, Fabr., Mant. Ins. ii, p. 292 (1787) ; Ent. Syst. iv, p. 110 (1794) ; Syst. Rhyng. p. 168 (1803).

Zangis beryllus, Stål, Hem. Fabr. i, p. 33 (1868) ; Stål, En. Hem. v, p. 125 (1876).

♀. Suboval, pale somewhat sordid flavescens, shining, above less

densely punctulate, first and second joints of the antennæ very pale virescent, third fuscous, virescent at the base, fourth and fifth testaceous, yellow-whitish at the base; extreme margin of the head, two longitudinal lines, approached before the middle, posteriorly more distant, parallel, a small line before the ocelli, also a lower line above the antenniferous tubercles, four minute spots on the pronotum at the anterior margin, six placed in a transverse row before the middle, also several behind the middle arranged in an undulating transverse row, four minute basal spots on the scutellum, one marginal on both sides before the middle and several posterior scattered; spots and small transverse lines on the exterior limb of the corium, a small spot on the pro- and mesostethium situate towards the coxæ, patch on the anterior angles of the prostethium, a minute spot almost at the middle of the basal margin of the sides of the mesostethium, lateral marginal puncture on the metastethium, basal and extremity of the apical angles of the ventral segments, narrow subapical and subbasal band on the segments of the connexivum, also apex of rostrum, black: membrane sordid hyaline: anterior lateral margins of pronotum, and exterior margin of corium, anteriorly weakly orange.

Head slightly sinuated before the eyes, somewhat narrowed before the sinus, rounded at the apex, anteocular part shorter than broad at the base; antennæ with the third joint scarcely twice longer than the second: pronotum very remotely punctured before a waved row of black spots, more obscure behind the same row, entire anterior margin narrowly elevated, lowest part of the anterior lateral margins a little reflexed, lateral angles scarcely prominulous: scutellum almost thrice broader at the base than at the apex of the frena: pectus remotely punctured, a large, opaque, lateral spot not punctured: venter very finely punctured, smooth on the disc, second segment at the base convexly elevated in the middle: extremity of the apical angles of the segments somewhat prominulous: tibiæ with a furrow continued through (*Stål*). Long, 15; broad, 8 mill.

Reported from India, Tranquebar.

Div. AXIAGASTARIA.

En. Hem. v, p. 64 (1876).

a. b. c. as in *Hoplistoderaria* (p. 66).

d. e. f. as in *Plautiaria* (p. 123).

g. Body flavescent, punctured black: feet sprinkled with black or fuscous: tibiæ above broadly furrowed, or flat and margined: ventral spiracles and the space around them usually black: membrane infusate.

Genus DIPLOSTIRA, Dallas.

List Hem. i, p. 300 (1851); Walker, Cat. Het. ii, p. 391 (1867): Stål, Ofvers. K, V.-A., Förh, p. 522 (1867); En Hem. v. p. 64, 94 (1876). Includes *Carenoscaptus*, Signoret, A. S. E. F. (2 s.) ix, p. 341 (1851).

Body elongate, broadest across the middle of the pronotum, thence attenuated posteriorly: head large, longer than broad between the eyes, margins very obsoletely sinuate, tylus and juga subequal in length, punctures arranged in longitudinal rows; ocelli moderate, placed very little further from each other than from the eyes: antennæ inserted a little in front of the eyes, about half the length of the body, 5-jointed; basal joint very short, not reaching nearly to the apex of the head; second joint shorter than the third; the third joint shorter than the fourth; the fifth shorter than the fourth, but longer than the third: rostrum stout, reaching the base of the abdomen, inserted in front of the base of the antennæ, basal joint short, not reaching the base of the head, second joint longer, third longest, fourth longer than the first but shorter than the second: pronotum hexagonal, immarginate, lateral margins round: ridge on the meso- and meta-stethium strongly elevated, robust, furnished with a deep furrow, elevated margins of furrow produced anteriorly before the first pair of coxæ, posteriorly behind the last coxæ, lobed; basal tubercle of venter compressed: furrow of the orifices long: scutellum reaching a little beyond the middle of the abdomen with the lateral margins waved, apex very broad and rounded. Coriaceous portion of the hemelytra with the apical margin very oblique; membrane large with numerous longitudinal veins; posterior lateral angles of abdominal segments slightly spinose: abdomen beneath with an obtuse median longitudinal ridge; legs rather stout; tarsi three-jointed; basal joint as long as the two following taken together.

231. DIPLOSTIRA VALIDA, Dallas.

Diplostira valida, Dallas, List Hem. i, p. 301, t. 10, f. 5 (1851); Walker Cat. Het. ii, p. 391 (1867): Stål, En. Hem. v. p. 94 (1876): Distant, A. M. N. H. (5 s.) iii, p. 45 (1879).

Carenoscaptus maculipes, Signoret, A. S. E. F. (2 s.) ix, p. 341 t. 10, f. 10; Walker, l. c. iii, p. 575 (1868). (1851).

♀. Testaceous, shining, more or less punctured with brown: head with the lateral margins black, and with six punctured, blackish brown longitudinal lines, placed two on the tylus and which meet at the middle of the vertex, and two on each of the juga, meeting at the ocelli: pronotum orange testaceous, thickly and coarsely punctured with dark brown; the punctures becoming confluent on the posterior portion of the disc forming a broad blackish brown band, indistinctly clouded with testace-

ous; the postero-lateral margins are testaceous, coarsely punctured with brown: scutellum orange testaceous; the base impunctate, with the lateral margins strongly punctured with blackish brown, and four punctured blackish brown spots across at the margin of the pronotum; the apex rather finely punctured with brown; the middle occupied by a broad, blackish brown, transverse band, interrupted in the middle: coriaceous portion of the hemelytra with the disc covered with rather coarse, confluent, brown punctures, so that only a few points of the testaceous ground colour appears; outer margin testaceous, with two longitudinal lines of blackish brown punctures; membrane brown, semitransparent: abdomen beneath testaceous, very thickly and finely punctured with brown, and clothed with fine, short, whitish hairs, with the median ridge impunctate, smooth and naked: pectus testaceous, more coarsely, but less closely punctured than the abdomen, naked, shining and somewhat rugose: legs orange red; femora covered with round black points; tibiæ with a black line down each of the ridges of the outer edge; claws black: rostrum and antennæ pale orange-red; the apical joint of the latter palest (*Dallas*).

Long, 25—27 mill. Reported from Silhat, Assam, Sikkim (mihi).

Genus AXIAGASTUS, Dallas.

Dallas, List Hem. i, p. 221 (1851): Walker, Cat. Het. ii, p. 268 (1867): Stål, Ofvers. K. V.-A. Förh., p. 511 (1867); En. Hem. v. p. 64, 94 (1876).

Body ovate: head longer than broad between the eyes, rounded at the apex, tylus and juga subequal in length, lateral margins distinctly sinuated; eyes very prominulous, globose: ocelli large, placed close to the eyes: basal joint of the antennæ short and stout, not reaching the apex of the head; second joint more than twice the length of the first, but shorter than the third; rostrum very long, reaching the middle of the third ventral segment, inserted close to the apex of the head; basal joint shortest, reaching the base of the head; second joint longer than the first, shorter than the fourth; third longest: anterior angles of the rostral canal produced downwards into two long, curved tusks, of which the points are turned a little hindwards and inwards: pronotum hexagonal, unarmed, margined anteriorly and on the sides, lateral angles rounded, not produced: scutellum large and long, reaching at least two-thirds the length of the abdomen, with the apex broad and rounded: frena not reaching the middle of the scutellum: coriaceous portion of the hemelytra, much longer than the membrane, reaching nearly to the apex of the scutellum; membrane with longitudinal veins: ridge on the meso- and meta-stethium varying in height and breadth, without a

furrow: legs moderate; tarsi 3-jointed, basal and apical joints about equal (*Dallas*).

232. AXIAGASTUS ROSMARUS, Dallas.

Axiagastus rosmarus, Dallas, List Hem. i, p. 221, t. 8, f. 5 (1851); Walker, Cat. Het. ii, p. 268 (1867); Stål, En. Hem. v. p. 94 (1876); Distant, A. M. N. H. (5 s.) iii, p. 45 (1879).

♂. Yellow, somewhat shining, rather finely and sparingly punctured with black: head with the margins, a line down each side of the median and two longitudinal lines on the vertex, black: eyes brown; ocelli reddish: pronotum with the lateral margins and four spots placed in a transverse line near the anterior margin, black; posterior margin blackish: scutellum with two small black spots near the middle of the base, a larger one on each lateral margin before the middle, and a large black patch before the apex; hemelytra clouded with brown; membrane brownish, semitransparent: margins of the abdomen banded with black and yellow, the base and apex of each segment being black: abdomen beneath very finely punctured with brown; stigmata black; pectus irregularly punctured with black and brown: legs yellow; femora with large, tibiæ with smaller, black points: rostrum with the extreme tip black: antennæ with the two basal joints yellow, the second with black points; third joint black, with the base yellow (*Dallas*). Long, 16—17 mill. Walker (*l. c.*) notes that the sides of the rostral canal are not spinose in the ♀: the length of the rostrum is variable, antennæ much more than half the length of the body, and the joints to the fourth successively increase in length, 4—5 equal in length; pale luteous spot at apex of the scutellum is very variable in size and shape.

Reported from Siam, Philippines, Assam (mihi).

Genus ASTYANAX, Stål.

Ofvers K. V.-A. Förh. p. 511 (1867): En. Hem. v. p. 64, 94 (1876).

Body broadly obovate: head much deflexed, slightly narrowed forwards, slightly sinuate on both sides before the eyes, obtusely rounded at the apex; tylus and jugæ equal in length, lateral margins somewhat obtuse; bucculæ rather elevated, continued through; ocelli near the eyes; rostrum extended somewhat behind the last pair of feet, first joint extending beyond the bucculæ; first joint of antennæ not reaching the apex of the head, second joint shorter than the third; pronotum much inclined forwards, anterior margin narrowly callously elevated: scutellum broad, a little longer than broad, somewhat shorter than abdomen, slightly narrowed hindwards behind the frena which occupy

a little more than one-fourth of the length of the scutellum; corium somewhat reaching the apex of the abdomen; apical angle rounded: membrane with longitudinal veins: meso-stethium carinate: furrow of the odoriferous apertures continued in a gradually vanishing wrinkle or ridge: venter rather convex, unarmed at the base (*Stål*).

Type, *Scutellera trimaculata*, St. Farg.

233. ASTYANAX TRIMACULATUS, St. Farg. & Serv.

Scutellera trimaculata, St. Farg. & Serv. Enc. Méth. x, p. 411 (1825).

Graphosoma trimaculata, Germar, Zeitschr. i, p. 54 (1839); Walker, Cat. Het. i, p. 69 (1867).

Hoplistodera trimaculata, Dallas, List Hem. i, p. 217 (1851); Walker, l. c., ii, p. 265 (1867).

Astyanax trimaculata, Stål, Ofv. K. V.-A. Förh. p. 629 (1870); En. Hem. v, p. 94 (1876).

♂. Pale testaceous, a little greyish; throughout finely punctured brown, the punctures form six longitudinal rows on the head: sides of pronotum spinose: scutellum with three whitish impunctate spots, bordered brown, the apical largest, oval: last four joints of the antennæ long, almost equal: rostrum extending a little beyond the posterior coxæ (*St. Farg.*). Long, $8\frac{3}{4}$ mill.

Reported from Java, Philippines, Penang, Malacca, Burma.

Genus CRITHEUS, Stål.

Ofvers. K. V.-A. Forh. p. 517 (1867); En. Hem. v, 64, 94 (1876).

Body oval, depressed: rostrum long, extended almost to the apex of the abdomen, first joint extending somewhat beyond the bucculæ, third somewhat longer than the second; head somewhat narrowed forwards, obtusely rounded at the apex, lateral margins somewhat acute, slightly sinuate behind the middle; juga and tylus of equal length; bucculæ continued through, moderately elevated; ocelli scarcely thrice farther from each other than from the eyes; antennæ somewhat slender, first joint not reaching the apex of the head, second joint shorter than the third: anterior lateral margins of the pronotum, reflexed, straight, anterior margin callous, scarcely truncate behind the eyes, lateral angles scarcely prominulous: scutellum moderate, narrow at the apex, frena extended beyond the middle of the scutellum: veins of membrane, simple: mesostethium carinate: metastethium somewhat elevated, posteriorly emarginate: furrow of the odoriferous apertures passing into a gradually evanescent wrinkle or ridge: abdomen slightly rounded on both sides, venter longitudinally somewhat flat in the middle, the extre-

mity of the angles of the segments somewhat prominulous (*Stål*). Allied to *Aviagastus*, Dallas.

234. CRITHEUS LINEATIFRONS, Stål.

Critheus lineatifrons, Stål, Berlin Ent. Zeit. xiii, p. 229 (1869): En. Hem. v, p. 44 (1876).

♂. Oval, pale sordid flavescent, above rather densely dotted black, the dots in patches on the pronotum and scutellum in the form of irregular transverse lines: a smooth longitudinal line on the head and pronotum also two or four small spots arranged in a transverse row before the middle on the pronotum, and a continued line within the anterior margins and the lateral anterior, smooth, this continued line ends within the row of densely accumulated black dots: dorsum of abdomen rufescent, testaceous: head scarcely shorter than the pronotum, transversely, finely, subrugose, marked beneath by black dots accumulated in abbreviated lines: antennæ slender, second joint distinctly longer than the first, third almost more than half longer than the second, fuscous near the apex: pronotum more than twice broader than long; scutellum posteriorly a little less densely punctured, with three small basal spots and the extreme part of the basal margin smooth: hemelytra punctured fuscous-ferruginous, sprinkled with a few small smooth spots; membrane infusate, veined fuscous: pectus sparingly dotted black, the dots accumulated here and there into some small spots: connexivum densely punctured black: venter sparingly punctured ferruginous-fuscous, more sparingly punctured in the middle; incisures, spiracles and transverse line behind the spiracles, black: anal segment in ♂ strongly retuse on the disc, broadly and obtusely sinuate at the apex, sinus itself slightly emarginate in the middle, posterior angles produced in a short lobe which is emarginate at the apex; femora remotely sprinkled ferruginous (*Stål*). Long, $11\frac{1}{2}$; broad, 6 mill.

Reported from Burma.

Genus ACESINES, Stål.

En. Hem. v. p. 65, 94 (1876).

Head short, almost equally long and broad between the eyes, broadly rounded at the apex, vaguely punctured, not sinuated in the lateral margins: pronotum vaguely punctured at the very narrowly levigate anterior margin, and at the somewhat acute and narrowly reflexed anterior lateral margins: scutellum moderate, shorter than the corium, posteriorly moderately broad: frena extended beyond the middle of the scutellum: rostrum not extended behind the metastethium, second joint

longer than the third : mesostethial ridge gradually thicker hindwards : metastethium somewhat elevated, sexangular, sinuated at the base ; basal tubercle of venter distinct, angulately prominulous and touching the metastethium : membrane with five veins (*Stål*).

235. ACESINES BREVICEPS, Stål.

Acesines breviceps, Stål, En. Hem. v, p. 94 (1876).

♀. Oval, somewhat depressed, weakly sordid flavescent, somewhat shining, above and on the pectus rather densely and distinctly punctured black, punctures arranged in lines and groups and leaving small irregular and confluent smooth spots : anterior margin and obsolete longitudinal line on pronotum, also anterior, obtriangular, indeterminate spot on scutellum, less densely punctured or somewhat smoothish : sides of venter remotely sprinkled with fine punctures ; lacerated lateral streak, sixth segment and anal valvules, blackish : dorsum of abdomen, membrane and two apical joints of the antennæ, fuscous : tibiæ minutely sprinkled fuscous. Head about one-third shorter than the pronotum, anteocular part transverse, gradually very slightly narrowed forwards beyond the middle, thence at the apex abruptly, broadly and obtusely rounded : first joint of the antennæ scarcely reaching the apex of the head, second joint a little shorter than the third : bucculæ slightly elevated, posteriorly lower : rostrum reaching the base of the venter, first joint on a level with the bucculæ posteriorly, third joint shorter than the second, longer than the fourth : anterior lateral margins of the pronotum straight, acute, very narrowly somewhat laminated and reflexed (*Stål*). Long, 9 ; broad, 6 mill. Reported from India.

Div. EURYASPARIA.

En. Hem. v, p. 65 (1876).

a. b. c. as in *Hoplistoderaria*, (p. 66).

d. e. as in *Plautiaria*, (p. 123).

f. Head posteriorly, between the eyes and the ocelli, rather strongly, or very distinctly, impressed : corium and scutellum equal in length, or somewhat so : the scutellum broad behind the short frena : anterior lateral margins of the pronotum rounded, levigate, or callous : feet pale, not pictured (*Stål*).

Genus EURYASPIS, Signoret.

Euryaspis, Sign., A. S. E. F. (2 s.), ix, p. 342 (1851); *Euryaspis*, Stål, En. Hem. v, p. 65 (1876).

Scutellum large, occupying more than three-fourths of the abdomen, very broad and rounded : joga and tylus equal in length : rostrum

barely reaching the posterior feet and enclosed at its base : eyes very stout ; ocelli approximate to the eyes : antennæ 5-jointed, the 3—4 joints longest : pronotum very tumid and inclined forwards ; angles rounded : hemelytra longer than the abdomen : sternal ridge ending in a point and flattened between the anterior feet, very broad between the middle and posterior feet, slightly bifurcate in order to receive the ventral point which is very short : abdomen very tumid, ecarinate : feet cylindrical (*Sign.*).

Remarkable for the large scutellum and the rounded tibiæ which are very finely furrowed above.

236. EURYASPIS TRANSVERSALIS, Signoret.

Euryaspis transversalis, Sign., A. S. E. F. (2 s.) ix, p. 343, t. 10, f. 1, (1851).

Euryaspis transversalis, Stål, En. Hem. v, p. 95, (1876).

Yellow, varied with brown and lighter yellow : head small, yellow, with the lateral margins sinuate, the sinuosity black as well as the grooves between the lobes, the space around the ocelli and the posterior margin : pronotum divided in two by a sinuated band of a lighter yellow almost white, proceeding from one to the other of the posterior angles ; the anterior part, yellow, and the posterior, brownish : scutellum with a yellow surface anteriorly, bounded by a circular band of a much lighter yellow and almost white, and, posteriorly, a broad patch of a brownish red, circumscribed yellow, and strongly punctured above on both sides : hemelytra brownish-yellow : membrane transparent with 7—8 veins, hardly bifurcate : body beneath and feet yellow : abdomen with four brown bands : stigmata small and black (*Sign.*). Long, 9 mill.

Reported from Pondicherry.

Div. MENIDARIA.

En. Hem. v, p. 65, (1876).

a. b. c. as in *Ho plistoderaria*, (p. 66).

d. Second ventral segment obtusely convex in the middle, or with a porrect spine, rounded or compressed, very rarely obtusely somewhat tuberculate in the middle, if so, the tibiæ are rounded and without a furrow : metastethium not elevated : mesostethial ridge everywhere equal in breadth, or somewhat so : third joint of the rostrum very rarely a little longer than the second.

e. Tibiæ above generally sulcated, or flattish and margined, very rarely entirely rounded and without a furrow, if so, the venter has a porrect spine at the base.

f. Tibiæ above margined on both sides, or with a broad, very distinct furrow: mesostethial ridge anteriorly not, or barely, strongly elevated, there neither laminated, nor freely produced, nor thickened: ventral spine, when present, short or moderate, rarely extending somewhat beyond the intermediate coxæ: ventral spiracles very rarely black: apical angles of the sixth abdominal segment not produced in a large acute tooth: rostrum extended behind the intermediate coxæ, generally reaching or extending beyond the base of the venter (*Stål*).

Genus CRESPHONTES, Stål.

Ofvers. K. V.-A. Förh., p. 514, (1867): En. Hem. v, p. 65, 95, (1876).

Body broadly obovate: head rather inclined, narrowed forwards, very slightly sinuate before the eyes, rounded at the apex; tylus and juga of equal length; antocular part shorter than broad; lateral margins flattened, acute; bucculæ continued through, moderately elevated: ocelli about thrice further from each other than from the eyes; rostrum extended between the last coxæ, first joint as long as the bucculæ, second joint longer than the third; antennæ moderate, first joint scarcely reaching the apex of the head, second joint shorter than the third: pronotum moderately inclined, anterior margin not elevated, scarcely truncate behind the eyes, anterior lateral margins somewhat obtuse, lateral angles obtuse, produced in a broad process: scutellum somewhat broad at the apex, moderately long, frena extended a little beyond the middle of the scutellum: apical margin of corium rounded: mesostethium distinctly carinate: venter, at the base, with a long robust spine: furrow from the odoriferous apertures continued in a long, gradually vanishing, wrinkle or ridge: apical angles of abdominal segments scarcely prominulous (*Stål*).

237. CRESPHONTES NIGRO-MACULATUS, Haglund.

Cresphontes nigro-maculatus, Haglund, Stettin Eut. Zeit. xxix, p. 157, (1868): Stål, En. Hem. v, p. 95, (1876).

♂. Subquadrate, posteriorly rounded, pale flavescent or stramineous; head and pronotum, in patches, sides and apex of scutellum densely, punctured black; hemelytra densely punctured rufescent; the lower portion of the hemelytra, dorsum of abdomen, two basal joints of the antennæ, and base of three last joints, connexivum, and feet, more or less, rufescent: three last joints of the antennæ, a somewhat smooth median shining spot on the scutellum, numerous minute spots on pectus and venter, duplicated spots on the connexivum, also some spots on the apices of the femora, black; membrane and wings, fusciscent: basal internal angle of the membrane with an obscure spot.

Head rounded at the apex, tylus continued through; ocelli four times further from each other than from the eyes: antennæ extended, reaching beyond the lateral angles of the pronotum, last three joints equal, twice as long as the second: rostrum hardly reaching the last pair of coxæ: pronotum transverse, almost thrice broader than long; lateral angles roundly produced, posterior margin subsinuate: sides of the scutellum a little sinuate; apex rounded; frena extending somewhat beyond the middle: dorsum of abdomen hardly violascent; beneath densely, but not strongly, punctured; ventral spine narrowed, acute, reaching the middle between the anterior and intermediate coxæ; pleuræ opaque, rufescent: minute black spots on the venter arranged in six rows; longitudinal spots in external rows in middle of the segments near the spiracles; transverse spots in median and internal rows on the basal margin of the segments; the internal rows of spots are wanting on the last two segments, but the last segment has a minute, median, transverse, basal, black spot: tibiæ not distinctly sulcate (*Haglund*). Long., $9\frac{1}{2}$; broad, hardly 7; exp. hem. 23 mill.

Reported from the Dekhan.

Genus ANTESTIA, Stål.

pt. Hem. Afric. i, p. 82, 200, (1864); Ofvers. K. V.-A. Förh., p. 514, (1855); En. Hem. v, p. 66, 95, (1876).

Head more or less deflexed, immarginate; juga and tylus of equal length; first joint of rostrum not extending beyond the bucculæ posteriorly; first joint of antennæ not or scarcely reaching the apex of the head, second joint shorter than the third: anterior and anterior-lateral margins of the pronotum distinctly reflexed or callous, elevated: scutellum broad or somewhat so at the apex: mesostethium not, or but slightly, carinate: venter sometimes distinctly spinose at the base (*Stål*). Certain virescent species of *Antestia* are very like *Zangis* and *Plantia*, but differ in having the second ventral segment in the middle rather convex and not very prominulous, pronotum strongly margined, and the tibiæ above distinctly flat and marginate.

238. ANTESTIA ANCHORA, Thunberg.

Cimex anchora, Thunberg, Nov. Ins. Spec. ii, p. 47, t. 2, f. 60, (1783).

Pentatoma anchora, Dallas, List Hem. i, p. 254, (1851); Walker, Cat. Het. ii, p. 300 (1867).

Pentatoma cruciata, Ellenr., Nat. Tijdskr. Ned. Ind. xxiv, p. 154, (1862).

Antestia anchora, Stål, En. Hem. v, p. 96, (1876); Distant, A. M. N. H. (5 s.) iii, p. 45, (1879); J. A. S. B. xlviii (5), p. 37, (1879).

Head pale orange-yellow, with a black, oblong, longitudinal spot between the eyes: pronotum pale orange-yellow on the margins and

anterior half of the median line, rest lutescent-whitish, with six black spots, of which two oblong, transverse, lie along the anterior margin; four, oblong or slightly cuneiform, longitudinal, towards the posterior margin: scutellum lutescent-whitish, the middle pale orange, with two ovate or semicircular black spots at the base, two minute triangular, scarcely visible, at the basal angles, and two large triangular spots towards the apex and whose bases rest on the margins, black: hemelytra pale orange-yellow, with three somewhat rounded black spots arranged triangularly: membrane black, tip pale: beneath, pale virescent with 5—7 rows of black spots, the marginal minute, not continued on the pectus, sometimes indistinct, the second oblong, transverse, the third sometimes confluent with the second and sometimes wanting, the median, on the disc, oblong transverse. In Ellenrieder's example from Sumatra, the two anterior spots on the scutellum are ovate, the posterior triangular, the orange-yellow space between them taking the form of a cross; 1—2 joints of antennæ and the feet, rufous, femora indistinctly annulate, tarsi fuscous-brunneous, beneath sordid lutescent, with, on both sides, a lateral row of black spots and a median row of brunneous spots. Long, 10—11; broad, $7\frac{1}{2}$ mill.

Reported from Java, Sumatra, Burma, Tenasserim, Sikkim (mihi), China.

239. ANTESTIA PULCHRA, Dallas.

Pentatoma pulchra, Dallas (nec Westw.), List Hem. i, p. 253, (1851): Walker, Cat. Het., p. 300, (1867): ? Stål, En. Hem. v, p. 128, (1876).

♀. Rounded ovate: head rather large, pale tawny, smooth and impunctate, with the sides narrowly margined: eyes black; ocelli red: pronotum with six black spots which occupy nearly the whole surface, namely, a rather small oblong transverse spot on each side close to the anterior margin, a larger one on each lateral angle, and two large somewhat quadrate spots, covering nearly the whole disc and reaching the posterior margin; the narrow anterior margin, the anterior portion of the lateral margins, a transverse line near the anterior margin, a median longitudinal line, and a longitudinal line on each side running from the transverse line to the posterior margin, are yellow; the median longitudinal line has an orange spot close to the anterior margin, the posterior portion of the disc, with the exception of the median yellow line, is rather strongly, but not very thickly, punctured, with the punctures black on the lateral longitudinal yellow lines, and there is a line of 5—6 fine black punctures on the yellow portions of the lateral margin close to the edge: scutellum yellow, orange towards the base and at the apex, with a narrow transverse black band, interrupted in the middle, at the base, and a large,

somewhat bifid, pitchy black patch occupying nearly the whole of the disc; the basal portion smooth and impunctate, the disc rather strongly punctured, the punctures becoming finer and closer towards the apex, which is very finely and thickly punctured, the lateral margins punctured with black: hemelytra orange, with the inner part of the coriaceous portion yellow, thickly and rather strongly punctured towards the base, more finely towards the apex, with an impunctate space on the disc behind the middle; with a large patch, posteriorly deeply emarginate, on the disc about the middle, and the apical margin pitchy black; membrane dark brown: wings brown, semitransparent, with the apex darker: abdomen above red, very thickly and finely punctured, with the margins yellow; the margins of the second and of the base of the third segments are black. Body beneath pale yellow, smooth, and shining: venter impunctate, with a large black spot on each side of each segment except the last, which has a large square spot of the same colour in the middle; the lateral margins of the second segment are black: pectus with a line of fine blackish punctures within the margins of each segment and with two rows of large black spots on each side, of which the inner row consists of three spots, one in each segment, the outer of four, of which the fourth spot is placed close to the posterior angle of the metastethium: legs orange, with the base of the femora testaceous, and with a more or less distinct brown or blackish ring near the apex of the femora: rostrum brown, with the apex black, and the basal joint pale orange: antennæ black, with the two basal joints orange (*Dallas*). Body long, 11—12 mill.

Reported from India, Burma: the Indian Museum has specimens from Arakan, Sikkim (mihi).

240. ANTESTIA CRUCIATA, Fabricius.

Cimex cruciatus, Fabr., Syst. Ent., p. 714, (1775); Spec. Ins. ii., p. 358, (1781); Mant. Ins. ii, p. 295, (1787) Ent. Syst. iv., p. 119 (1794); Syst. Rhyng. p. 174 (1803); Wolff, Ic. Cim. ii, p. 62, f. 59, (1801): Herr. Schäff., Wanz. Ins. v, p. 63, t. 164 f. 506, (1839).

Pentatoma cruciata, Am. and Serv., Hist. Nat. Ins. Hém. p. 132, (1843): Dallas, List Hem. i, p. 254, (1851); Walker, Cat. Het. ii, p. 300, (1867).

Antestia cruciata, Stål, Ofvers. K. V.-A. Förh., p. 630, (1870); En. Hem. v, p. 96, (1876).

This species varies much, sometimes rufescent or croceous, sometimes flavescent or virescent, spots on the upper side larger or smaller, black or olivaceous-virescent, pectus and venter on the anterior angles of the segments marked with a blackish spot or immaculate. Antennæ fuscous: head pale, with two curved black lines, the sides brunneous:

pronotum pale, four spots anteriorly, and posteriorly six spots, black: scutellum black, sides pale at the base, a cruciform patch in the middle and at the apex pale: hemelytra pale, tinted ferruginous, with three black spots: wings fuscous: beneath flavescent, sides spotted black (*Fabr*). The outer spots of the anterior row on the pronotum are sometimes obsolete. Long, 9 mill.

Reported from Java, Burma, Bengal. The Indian Museum has specimens from Calcutta, Sikkim (mihi).

241. *ANTESTIA MODIFICATA*, Distant.

Antestia modificata, Dist., Trans. Ent. Soc. p. 350, t. 12, f. 4, (1887).

Ochraceous, spotted with bluish black, above sparingly punctate: head luteous, margins of tylus and margins of juga in front of the eyes, also two spots at base, bluish-black: eyes brownish: antennæ bluish black: pronotum with eight bluish-black spots, the six largest arranged in two rows on the disc, and a smaller elongate spot in each basal angle: corium with four bluish-black spots, one at the base, one at the apex, and two median: membrane pale hyaline with a large bluish-black subquadrate spot at the base: body beneath pale luteous, sternum spotted with bluish-black, and abdomen with sutural fasciæ and lateral spots of the same colour: legs luteous; femora with a blackish spot near their apices: antennæ with second joint shorter than the third, 4—5 joints longest (*Dist.*). Long, 7 mill.

Reported from Sikkim, where it is rather common (mihi).

Genus *APINES*, Dallas.

List Hem. i, p. 231, (1851); Walker, Cat. Het. ii, p. 283, (1867); Stål, En. Hem. v, p. 97, (1876).

Head deflexed, about as broad as long, rounded at the apex, the tylus as long as the juga: eyes prominent: ocelli distant but not placed very near the eyes: antenniferous tubercles very small, entirely concealed by the lateral margins of the head: antennæ more than half the length of the body, 5-jointed; basal joint short, not reaching the apex of the head; second joint about the length of the first, much shorter than the third; the 3—4 joints about equal; fifth a little longer: rostrum scarcely reaching the posterior coxæ; basal joint reaching the base of the head, second longest, third shorter than the fourth, which is very little shorter than the second: body oblong-ovate, somewhat elongate: pronotum very little broader than long, much broader behind than before: scutellum somewhat triangular, but with the apex rather broad and rounded: corium rather longer than the membrane with its apical

margin oblique and rounded; membrane with longitudinal veins: abdomen and sternum unarmed: legs rather long; tarsi 3-jointed, the basal and apical about equal (*Dallas*).

242. APINES CONCINNA, Dallas.

Apines concinna, Dallas, List Hem. i, p. 232, t. 9, f. 2, (1851); Walker, Cat. Het. ii, p. 283, (1867); Stål, En. Hem. v, p. 97, (1876).

♂. Shining black, thickly and finely punctured: pronotum with the lateral margins narrowly edged with white, and with a large somewhat ovate yellow spot on the middle of the disc: scutellum with a large yellow spot in each basal angle, and a large spot of the same colour on the apex; across the disc, close behind the two basal spots, runs an orange yellow line, which forms a kind of anchor, with a short longitudinal line running between the two spots: corium with the basal portion of the outer margin whitish, and with a transverse white band near the apex; membrane blackish: abdomen with the margins of the 3—5 segments white, interrupted with black at the sutures: pectus with a large, triangular white spot in each of the posterior angles: coxæ and base of the femora white; apices of the femora black; anterior tibiæ yellowish white, with a black line down the inside; intermediate tibiæ white, with the base, and a minute line at the apex, black; posterior tibiæ white, with the base and apex black; tarsi black: rostrum black: antennæ black, with the second joint testaceous (*Dallas*). Long, $6\frac{1}{2}$ mill.

Reported from India, Bombay, Hardwar (mihi).

Genus MENIDA, Motsch.

E'tud. x, p. 23, (1861); Stål, En. Hem. v, p. 66, 97, (1876).

Differs from *Antestia*, Stål, in having the second ventral segment with a gradually compressed, porrect spine, almost laminate at the apex, or with a compressed tubercle, prominulous forwards. In *Antestia* there is neither spine nor tubercle..

243. MENIDA SIGNORETII, Stål.

Menida Signoretii, Stål, En. Hem. v. p. 98, (1876).

Very like and closely allied to *M. maculiventris*, Dallas, differs only in having the pronotum at the lateral intramarginal row of dots narrowly smooth, and flavescent, entire anterior margin callous and smooth, not punctured behind the eyes, and head somewhat shorter (*Stål*). Long, $7\frac{1}{2}$; broad, 4 mill.

Reported from India (Africa?).

244. MENIDA FLAVO-VARIA, Dallas.

Rhaphigaster flavo-varius, Dallas, List. Hem. i, p. 288, (1851).

Antestia flavo-varia, Walker, Cat. Het. ii, p. 23, (1867).

Menida flavo-varia, Stål, En. Hem. v. p. 98, (1876): Distant, A. M. N. H. (5 s) ii, p. 45, (1879).

Above black, thickly and rather finely punctured: head with a few irregular yellowish points: pronotum with the lateral margins, a spot on the middle of the anterior margin, a corresponding one on the posterior margin, one on each lateral margin, and three or four on the disc, yellow: scutellum with a large cross on the disc, the apex and a spot in each basal angle, yellow: hemelytra with the base of the outer margin, and a spot on the disc, a little behind the middle, yellow; membrane transparent, with an indistinct, brown, transverse band across the middle: abdomen with the margins banded with yellow and black; beneath black, with the sides thickly and finely punctured, the lateral margins banded with yellow and black; basal spine passing the posterior coxæ, brown: legs yellow: rostrum brownish: antennæ pale brown, with the 4-5 joints black (*Dallas*). Long $7\frac{3}{4}$ —8 mill.

Reported from N. India, Assam, Sikkim (mihi).

245. MENIDA FORMOSA, Westwood.

Pentatoma formosa, Westwood, Hope, Cat. Hem. i, p. 34, (1837).

Rhaphigaster spectandus, Stål, Freg. Eng. Resa Hem., p. 230, (1859).

Rhaphigaster albidens, Ellenr., Nat. Tijds. v. Ned. Ind. xxiv, p. 159, (1862).

Menida formosa, Stål, En. Hem., v. p. 99, (1876).

Brassy fuscous, varied with whitish; three lines on the head anteriorly, two lines posteriorly, and a dot before the eyes, whitish: pronotum anteriorly with two transverse rings and a waved median line, scutellum with two basal spots and an apical anchor-shaped spot (sometimes connected by a longitudinal median line with the basal spots), pale: two marginal spots on the hemelytra pale; antennæ fuscous, pale at the base; posterior femora and all the tibiæ at the apex, and the tarsi, black (*Westw.*). Long, 6—7 mill.

Very like *M. varipennis*, Westw.: the flavescent lateral lines on the head abbreviated behind the middle; median line forked posteriorly, sometimes interrupted before the fork; band on the pronotum broad, marked and sometimes divided into two by a confused row of black dots; venter flavescent, sides spotted fuscous, median streak sometimes fuscous; yellow marking on the dorsum variable (*Stål*).

Reported from China, Malacca, Sumatra, Burma, Sikkim (mihi).

246. *MENIDA VARIPENNIS*, Westwood.

Pentatoma varipennis, Westwood, Hope, Cat. Hem. i, p. 43, (1837).

Rhaphigaster varipennis, Dallas, List Hem. i, p. 286, (1851).

Antestia varipennis, Walker, Cat. Het. ii, p. 281, (1867).

Menida varipennis, Stål, En. Hem. v, p. 98, (1876): Distant, A. M. N. H. (5 s.) iii, p. 45, (1879).

Brassy, thinly punctured, shining: head with three lines (the lateral interrupted), and the orbit of the eyes, anterior and lateral margins of the pronotum and an anterior band interrupted in the middle, scutellum at the base, and an apical moon-shaped spot, whitish: hemelytra fuscous at the base, black in the middle, with a whitish spot before the membrane which is fuscous; antennæ and feet, luteous: posterior angles of the pronotum not prominent (*Westw.*).

Head adorned with a spot at the eyes and with three, parallel, longitudinal lines (the lateral lines interrupted posteriorly), flavescens, shining: beneath black: lateral limbus, two rows of spots and the ventral spine flavescens. Long, $7\frac{1}{4}$ mill.

Reported from Java, Tenasserim, Sikkim (mihi).

247. *MENIDA DISTINCTA*, Distant.

Menida distincta, Distant, Trans. Ent. Soc., p. 122, (1879); Scient. Res, 2nd Yarkand Miss., p. 6, f. 3, (1879).

Luteous, covered with strong greenish-black punctures: head luteous, with the lateral margins and four longitudinal punctured lines greenish-black; these lines are much more distinct on the ante-ocular portion of the head: eyes dull ochreous: antennæ pilose with the second joint shorter than the third, 4—5 joints sub-equal, rather longer than the third; 1—3 joints luteous, apex of the first, and apical half of the third, black; 4—5 joints, black, narrowly luteous at the base: rostrum luteous, apical joints pitchy: pronotum with an anterior submarginal line of greenish-black punctures, and two irregular transverse ocellated punctured marks of the same colour on the anterior portion of the disc: scutellum with a large median sub-basal greenish-black spot, and two small and somewhat indistinct ones of the same colour situated on the lateral margins a little before the apex: membrane transparent, whitish: abdomen above black, connexivum luteous, spotted with black: underside of body and legs luteous, sparingly and distinctly punctured with black: tarsi pitchy (*Distant*). Long, 6 mill.

Reported from Murree, Sind valley.

248. MENIDA HISTRIO, Fabricius.

Cimex histrio, Fabr., Mant. Ins. ii, p. 296, (1787); Ent. Syst. iv, p. 122, (1794) Syst. Rhyng., p. 178, (1803).

Rhaphigaster concinnus, Dallas, List Hem. i, p. 285, (1851); Walker, Cat. Het. ii, p. 281, (1867).

Antestia histrio, Stål, Hem. Fabr. i, p. 34, (1868).

Menida histrio, Stål, En. Hem. v, p. 98, (1876).

Head deep black; orbit of the eyes and five lines (the two intermediate abbreviated), black; antennæ ferruginous: pronotum rufous with numerous, impressed, fuscous points: anteriorly with two large fuscous spots, punctured rufous: scutellum varied yellow and rufous with three fuscous spots, the posterior marginal: hemelytra fuscous, posteriorly with a rufous patch; wings whitish: beneath deep black with two rows of whitish spots which, however, do not reach the apex: margin of abdomen whitish (*Fabr.*).

Dallas describes his *R. concinnus* thus:—Above testaceous or pale orange, shining, finely, but not very evenly, punctured black: head with the lateral margins, a line within the orbit of each eye, two parallel median longitudinal lines reaching the posterior margin of the head and sometimes an abbreviated line on each of the juga, black: pronotum with a strong, punctured, black line running close to the anterior and antero-lateral margins, and on the anterior portion of the disc, two irregular, transverse, black ocellated marks: scutellum with a lozenge-shaped black spot in the middle near the base and a black spot on each lateral margin near the apex: hemelytra with a broad black apical band which is interrupted in the middle by a broad, oblique, reddish line: the membrane transparent, whitish: margins of the abdomen yellow, thickly punctured, with a black band on each of the sutures: body beneath testaceous, thickly punctured at the sides: with three broad longitudinal bands, one on each side, running from behind the eyes to the apex of the abdomen, having a narrow testaceous margin throughout its entire course, and one down the middle which is sometimes formed of distinct spots on the abdomen: the abdomen is sometimes black, with a large testaceous patch on each side at the base: ventral spine long, reaching the intermediate coxæ, testaceous: legs orange: rostrum pitchy, base testaceous; antennæ pale brown (*Dallas*). ♂, long, $6\frac{1}{2}$: ♀, long, 8 mill.

Reported from Tranquebar, China, Calcutta (mili).

Div. PIEZODORARIA.

En. Hem. v, p. 66, (1876).

a. b. c. as in *Hoplistoderaria*, (p. 66).

d. e. as in *Menidaria*, (p. 133).

f. Tibiæ generally rounded, rarely furnished above with a narrow and obsolete furrow, or flat and immarginate: venter spinose at the base, spine sometimes extended to the head: apical angles of the sixth abdominal segment sometimes produced in a large acute tooth (*Stål*).

Genus PIEZODORUS, Fieber.

Eur. Hem. p. 78, 329, (1861); Walker, Cat. Het. ii, p. 367, (1867); Stål, En. Hem. v, p. 66, 100 (1876).

Body oblong-obovate, smooth: head short, rounded in front; basal joint of the antennæ shorter than the head, third joint longer than second and as long as the fourth; rostrum extended to between or behind the intermediate coxæ, somewhat slender, first joint not reaching the base of the bucculæ, second joint shorter or about as long as the third which is thickened at the end: anterior margin of the pronotum with a callous elevation, only very narrowly smooth; extreme apex of clavus with a punctiform black or fuscous spot; membrane colourless: basal spine on venter long, mesostethial ridge anteriorly elevated and there incrassate or generally laminate, usually also freely prominulous between the first pair of coxæ; spiracula black; furrow of the odoriferous aperture long, continued in a ridge or wrinkle: apical angle of sixth abdominal segment not produced in a large tooth.

249. PIEZODORUS RUBRO-FASCIATUS, Fabricius.

Cimex rubro-fasciatus, Fabr., Mant. Ins. ii, p. 293, (1787); Ent. Syst. iv, p. 114, 1794; Syst. Rhyng. p. 170, (1803).

Cimex hübnéri, Gmelin, ed., Syst. Nat. i, (4), p. 2151, (1788).

Cimex flavescens, Fabr., Ent. Syst. Suppt. p. 534, (1798); Syst. Rhyng. p. 168, (1803).

Rhaphigaster flavolineatus, Westwood, Hope, Cat. Hem. i, p. 31, (1837); Dallas, List Hem. i, p. 283, (1851); Walker, Cat. Het. ii, p. 364, (1867).

Rhaphigaster virescens, Am. & Serv., Hist. Nat. Ins. Hém. p. 148, (1843).

Nezara pellucida, Ellenr., Nat. Tidsskr. Ned. Ind. xxiv, p. 157, f. 26, (1862); Walker, l. c. p. 367, (1867).

Rhaphigaster oceanicus, Montr., Ann. Soc. Linn. Lyon. (2 s.) xi, p. 224, (1865).

Piezodorus rubro-fasciatus, Stål, Hem. Fabr. i, p. 32, (1868); En. Hem. v, p. 100, (1876); Scott, A. M. N. H. (4 s.) xiv, p. 290, (1874) Distant, Trans. Ent. Soc. p. 415, (1883); Lethierry, Ann. Mus. Gen. xviii, p. 703, (1883).

Above virescent, beneath flavescens: pronotum posteriorly more obscure, furnished with a sanguinous band (*Fabr.*). Above and feet

pale flavescens, immaculate: antennæ rufous, first joint pale at the base: abdomen beneath with a row of black dots (*C. flavescens*, Fabr.). Pale lutescent or albescent, with a sulphur-coloured border, a transverse luteous line between the posterior angles of the pronotum bordered with greyish bands: hemelytra pellucid, membrane hyaline: feet pallescent, tarsi brunneous; 4—5 joints of the antennæ, purpurascens: beneath ochraceous (*N. pellucida*, Ellenr.). Long, 8 mill.

Reported from N. Australia, Java, Sumatra, Philippines, New Caledonia, Ovalau, Tahiti, Assam, Sikkim (mihi), Bengal, Cochin-China, Japan, Zanzibar, Abyssinia.

Genus AMBIORIX, Stål.

En. Hem. v, p. 66, 100, (1876).

Apical angles of the sixth abdominal segment produced in a large acute tooth: abdomen gradually narrowed, sides somewhat straight: basal spine of venter extended to the head, gradually compressly acuminate: anterior lateral margins of the pronotum, also the anterior behind the vertex, levigate, the former straight, lateral angles somewhat prominulous, straight, rounded at the apex: frena extended beyond the middle of the scutellum: corium a little longer than the scutellum, apical margin rounded: ventral spiracula black: mesostethium with a fine ridge: tibiæ above narrowly and slightly furrowed: rostrum reaching the last pair of feet, the 2—3 joints somewhat equal in length: membrane colourless (*Stål*).

250. AMBIORIX AENESCENS, Stål.

Ambiorix aenescens, Stål, En. Hem. v, p. 100, (1876).

♀. Greyish-flavescens, shining; beneath with the feet verging into ferruginous; above distinctly and densely punctured, black; beneath not so distinctly, and not so densely, punctured fuscous: 2—3 joints of the antennæ, black: head, barely anterior half of pronotum, rounded impunctate basal spot and band near the impunctate flavescens apex of the scutellum, anterior punctures on the costal area of the hemelytra and bands on the connexivum, brassy: the dorsum of the abdomen obscurely violaceous: wings towards the apex and the membrane, infuscate, a colourless apical spot on the membrane: the extreme apical margin of the head, anterior lateral margins and anterior margin of the pronotum (the latter abbreviated on both sides), flavescens, levigate: lateral angles of pronotum slightly prominulous, lateral margins, straight: abdomen in ♀ acutely quadridentate at the apex (*Stål*). Long, $9\frac{1}{2}$: broad $5\frac{1}{2}$ mill.

Reported from N. India.

Div. BATHYCOELIARIA.

En. Hem. v, p. 67, (1876).

a. b. c. as in *Hoplistoderaria*, (p. 66).

d. Venter with a furrow, its margins obtusely elevated, cylindrical, smooth: mesostethium distinctly carinate: furrow of the orifices continued in a long wrinkle or ridge.

Genus JURTINA, Stål.

Ofvers. K. V.-A. Förh. p. 518, (1867); En. Hem. v, p. 67, 101, (1876): includes *Gastraulax*, pt. Herr. Schöff., Wanz. Ins. vii, p. 61, (1844).

Head shorter than the pronotum, gradually narrowed forwards, rounded at the apex, antecular part almost longer than broad, lateral margins somewhat obtuse, posteriorly very slightly sinuate; bucculæ continued through, moderately elevated: ocelli about thrice as far from each other as from the eyes; rostrum somewhat reaching the apex of the abdomen, first joint on a level with the bucculæ, third joint longest of all; first joint of antennæ scarcely reaching apex of head, second joint shorter than third: anterior lateral margins of pronotum straight, somewhat obtuse, anterior margin truncate behind the eyes, lateral angles somewhat prominulous: scutellum moderate, frena extended to apical third of scutellum: veins of membrane simple: mesostethium with a somewhat high ridge: metastethium slightly elevated: furrow from the odoriferous apertures continued in a gradually vanishing wrinkle or ridge: venter deeply furrowed, second segment elevated in the middle, not produced forwards: tibiæ obtusely rounded, not furrowed (*Stål*).

251. JURTINA INDICA, Dallas.

Bathycœlia indica, Dallas, Cat. Hem. i, p. 270, (1851); Walker, Cat. Hct. ii, p. 350, (1867).

Jurtina indica, Stål, En. Hem. v, p. 102, (1876).

♂. Above very pale green, very thickly and minutely punctured: head slightly truncated at the apex: pronotum with the lateral margins edged with violet: scutellum with a small round black spot in each basal angle: hemelytra with the outer margin dark green, except towards the base; membrane transparent, colourless: body beneath pale yellow, smooth and shining; abdomen impunctate; pectus finely punctured: legs pale yellow: rostrum pale yellow, with the tip of the last joint black: antennæ with the two basal joints and the base of the third pale violet, 3—4 joints pale yellow (*Dallas*). Long, 20 mill.

Reported from N. India.

Genus ABEONA, Stål.

En. Hem. v, p. 67, 102, (1876).

Head very slightly narrowed before the obtuse lateral sinus, very obtusely and broadly rounded at the apex: anterior lateral margins of pronotum sinuate; obtusely rounded, callous and levigate before the middle, with a reflexed ridge behind the middle, the lateral angles produced, acuminate; costal margin anteriorly straight, callous and rounded, thence slightly amplified: ventral furrow short, extended into the fourth segment: tibiæ rounded with a continued, narrow, distinct furrow.

252. ABEONA (?) SERRATA, Distant.

Abeona serrata, Dist., Trans. Ent. Soc., p. 350, (1887).

Above ochraceous, thickly, darkly and coarsely punctate: connexivum reddish ochraceous, with black linear spots near bases and apices of segmental sutures: antennæ 4-jointed, 1—2 joints dark ochraceous, 3—4 joints luteous, apical halves blackish; second joint very long, as long as 3—4 joints taken together, 3—4 joints sub-equal: juga much longer than the tylus, but notched in front: lateral margins of the pronotum serrate, lateral angles moderately and broadly produced and obtusely bispinose: a small blackish foveate spot on each basal angle of the scutellum: membrane brownish ochraceous: body beneath with the head, legs, rostrum and sternum ochraceous, the abdomen brownish ochraceous: head with a black linear spot on each side of the base of the antennæ: prostethium with some scattered black punctures: rostrum just passing the intermediate coxæ: tibiæ sulcated above: abdomen obtusely sulcate to about the fourth segment (*Dist.*). Long, 14; exp. angl. pron., 9 mill.

Reported from Bombay.

253. ABEONA GLADIATORIA, Stål.

Abeona gladiatoria, Stål, En. Hem. v, p. 102, (1876).

♀. A large, remarkable species: very pale sordid flavescent, shining especially beneath, above rather densely, distinctly and equally punctured ferruginous-fuscous, beneath to a very great part impunctate; third joint of the antennæ at the apex, the extreme margin and a small lower line on the head before the eyes, also the acute apex of the apical angles of the ventral segments, black: membrane somewhat colourless, basal angle and an apical spot, fuscous: wings infusate at the apex, dorsum of the abdomen somewhat sanguineous in the middle. Lateral margins of the pronotum callous before the middle, levigate, rounded,

having the lateral part produced in a gradually narrowed process, slender at the apex, and acuminate, turning outwards and slightly forwards: pronotum marked by a black-violaceous line within the smooth part of the lateral margins; anterior margin of lateral process carinately-elevated and black-violaceous, corium punctured violaceous anteriorly within the costal margin; scutellum marked on the basal angles with a small brassy-green spot: pectus near the coxæ with three punctiform black spots; pro- and meta-stethium punctured posteriorly: venter finely aciculate, with a very obtuse, levigate median ridge: connexivum punctured violaceous-fuscous, the extreme margin levigate (*Stål*). ♀, Long, 21; broad, 10; exp. horns of pron. 14, mill.

Reported from India.

Div. RHYNCHOCORARIA, *Stål*.

En. Hem. v, p. 67, (1876).

a. b. as in *Hoplistoderaria*, (p. 66).

c. Mesostethial ridge and metastethium highly elevated, briefly continued, the ridge extended anteriorly in a free lamina produced between and generally to a distance before the first pair of coxæ, anteriorly generally high: basal tubercle of the venter rather strongly elevated, anteriorly angulated, quiescent in the posterior sinus of the metastethium, the apical angles of the sixth abdominal segment generally acute, or produced in a long tooth; sixth ventral segment, in ♀, strongly sinuated in the middle before the anal valvules, the median part of the segment therefore generally shorter than the lateral part: tibiæ obtusely rounded and generally without a furrow, very rarely furnished with a narrow upper furrow: posterior margin of the pronotum generally sinuated.

Genus CUSPICONA, Dallas.

List Hem. i, 296, (1851); Walker, Cat. Het. ii, p. 2, (1867): *Stål*, *Ofvers. K. V.-A. Förh.*, p. 521, (1867); p. 637, (1870); En. Hem. v, p. 68, 102, (1876).

Body obovate or oval: head moderate, tylus as long as the juga: ocelli minute, placed near the inner angle of the eyes; rostrum moderate, second joint about as long as or longer than the third; antennæ 5-jointed, about as long as the head and the pronotum taken together, basal joint shortest, not reaching the anterior margin of the head, second joint longer than the third, 4—5 joints nearly equal, as long or longer than the second, sometimes the fourth, sometimes the fifth longest: pronotum not transversely impressed, posterior angles not or but very slightly produced, obtuse: plate of the mesostethial ridge reaching but not produced beyond the anterior margin of the prostethium: tibiæ rounded, only towards the apex flattish or somewhat furrowed; tarsi 3-jointed.

254. *CUSPICONA CURTISPINA*, Stål.

Hoffmanseggella curtispina, Stål, Stettin Ent. Zeit., xxix, p. 144, (1861); Walker, Cat. Het. ii, p. 399, (1867).

Cuspicona curtispina, Stål, En. Hem. v, p. 103 (1876).

♀. Pale, somewhat sordid flavescent, shining, above distinctly punctured: lateral angles of pronotum produced outwards, somewhat obtuse at the apex, moderately prominulous: apex of the posterior angles of the last ventral segment, rufescent: 2—3 joints of the antennæ of equal length: ventral segments unarmed: rostrum extending hardly beyond the last coxæ (*Stål*). Long, 10; broad, 5½ mill.

Reported from Java, Burma (?).

255. *CUSPICONA VIRESCENS*, Dallas.

Cuspicona virescens, Dallas, List Hem. i, p. 296 (1851); Walker, Cat. Het. ii, p. 379 (1867); Stål, En. Hem. v, p. 103 (1876).

♀. Above pale green, finely and thickly punctured: eyes black: pronotum with the lateral margins yellowish, the lateral spines acute, somewhat turned upwards and a little recurved towards the apex, the extreme tip black: membrane nearly colourless, transparent: body beneath testaceous, the pectus and sides of abdomen rather thickly punctured, sternal ridge rounded in front: legs testaceous, tibiæ becoming brownish towards the apex; tarsi brownish: rostrum testaceous: antennæ ferruginous, basal joint testaceous (*Dallas*). Long, 10½ mill.

Reported from Java, Burma.

256. *CUSPICONA PLAGIATA*, Walker.

Cuspicona plagiata, Walker, Cat. Het. ii, p. 379 (1867).

Testaceous, elongate-oval, minutely punctured, a little paler beneath: head elongate, smooth, transversely and finely striated, bordered with black and with black sutures between the juga and tylus which are of equal length; rostrum extending to the hind coxæ, tip black; antennæ black, slender, about half the length of the body, first joint not extending to the front of the head, second joint very much shorter than the third: pronotum mostly smooth in front, posterior angles forming two long, acute, black-striped, directly diverging spines: pectoral ridge very deep, especially in front of the first coxæ where it is much rounded: abdomen with a very large, purple, apical patch, beneath very slightly ridged, with black spines along each side, the basal spine extending to the last coxæ: legs rather slender: membrane aeneous-brown: wings cinereous, veins black (*Walker*). Long, 16¾ mill.

Reported from N. India.

257. CUSPICONA SMARAGDINA, Walker.

Cuspicona smaragdina, Walker, Cat. Het. ii, p. 380 (1867).

Deep green, elongate-oval, roughly punctured, luteous and bordered with pale green beneath: head on each side with a luteous streak, which includes a red streak; tylus hardly extending beyond the juga: rostrum green, extending to the second ventral segment; tip black: antennæ black, slender, green towards the base, rather more than half the length of the body; first joint extending nearly to the front of the head; third much longer than the second, much shorter than the fourth; fifth a little shorter than the fourth: pronotum mostly smooth in front; posterior angles forming two long acute spines, which are slightly ascending and inclined forwards; a luteous dot on the hinder base of each spine: pectoral ridge shallow: legs pale green: membrane cinereous (*Walker*). Long, $14\frac{1}{2}$ —15 mill.

Reported from Burma: the Indian Museum has specimens from Assam.

Add:—*C. antica*, Voll., Versl. Ak. Amst. Naturskun. ii (2), p. 188, (1868), from India.

Genus RHYNCHOCORIS, Westwood.

Pt., Hope, Cat. Hem. i, p. 29 (1837):—*Rhynchocoris*, Am. & Serv., Hist. Nat. Ins. Hém. p. 152 (1843); Dallas, List Hem. i, p. 198 (1851); Walker, Cat. Het. ii, p. 392 (1867); Stål, Ofvers. K. V.-A. Förh., p. 521 (1867); p. 637 (1870); En. Hem. v, p. 68, 103 (1876).

Body oblong-ovate, attenuated posteriorly: tylus a little shorter than the juga: rostrum 4-jointed, very long, reaching almost the apex of the abdomen, first joint very small, remaining three nearly equal: antennæ entirely, or to a very great part, black, elongate, very slender, 5-jointed, first joint very short, 2—4 joints gradually increasing in length, fifth as long as the third: pronotum broad, within the entirely somewhat elevated or callous anterior margin, furnished with a simple continued row of punctures; basal margin sinuate, posterior angles distinct, covering basal angles of scutellum, lateral angles much produced: apical angles of the abdominal segments prominulous in a large or somewhat large tooth: scutellum large, triangular, covering almost half of the abdomen, rounded at the apex: membrane with 9 straight longitudinal veins: feet slender: prostethium unarmed: mesostethium much ridged, produced before the prostethium: metastethium somewhat elevated in the middle, posteriorly bifid. Type, *R. humeralis*, Thunb.

258. RHYNCHOCORIS HUMERALIS, Thunberg.

Cimex humeralis, Thunb., Nov. Ins. Spec. ii, p. 40, t. 2, f. 54 (1783).

Cimex hamatus, Fabr., Mant. Ins. ii, p. 286 (1787); Ent. Syst. iv, p. 104 (1794)
Stoll, Punaies, p. 80, t. 20, f. 135 and 104, t. 27, f. 186 (1788).

Edessa hamata, Fabr., Syst. Rhyng. p. 147 (1803).

Acanthosoma hamata, Burm., Handb. Ent. ii (i), p. 359 (1835).

Rhynchocoris humeralis, Dallas, List. Hem. i, p. 302 (1851); Walker, Cat. Het. ii, p. 392 (1867); Stål, Hem. Fabr. i, p. 35 (1868); En. Hem. v, p. 104 (1876); Distant, A. M. N. H. (5 s.) iii, p. 45 (1879).

Antennæ black: rostrum as long as the body: the body virescent. (or flavescent), head and anterior part of pronotum more flavescent: pronotum acutely spinose, spine subarcuate hindwards, tip black: sternum porrect, obtuse, compressed: abdomen flavescent with a line of black dots on each side: margin of abdomen serrate, with five acute, small, black teeth: feet flavescent (*C. hamatus*, Fabr.). Altogether olive-green, yellow on the venter; spines of pronotum punctured black; corners of the abdominal segments acute, black. The Assam specimens are brown, and, in some cases, the scutellum is olive-green and also part of the pronotum. Long, 21; breadth of pronotum, $14\frac{1}{2}$ mill.

Reported from Siam, India, Silhat. The Indian Museum has specimens from Sibságar (Assam) and Sikkim (mihi), not uncommon.

259. RHYNCHOCORIS SERRATUS, Donovan.

Cimex serratus, Donovan, Ins. India, Hem., t. 8, f. 2 (1800): Stoll, Punaies, p. 10, t. 1, f. 3 (1788).

Rhynchocoris serratus, Am. & Serv., Hist. Nat. Ins. Hém., p. 152, t. 3, f. 2 (1843); Dallas, List. Hem. i, p. 302, (1851); Walker, Cat. Het. ii, p. 392 (1867); Stål, En. Hem. v, p. 104 (1876).

Pronotum with acute spines, testaceous: hemelytra greenish: abdomen serrate (*Don.*).

♀. Olive-green: posterior portion of pronotum and its posterior angles, punctured black, the latter almost entirely black: head above, with two longitudinal lines and one on each side between the base of the antennæ and the eyes, black: membrane hyaline nacreous brown: antennæ black, first joint yellow beneath: feet of the same colour as the body, spotted black (*Am. & Serv.*). Long, 20 mill.

Reported from Malabar, Malacca, Java, Philippines.

Div. TROPICORARIA.

En. Hem. v, p. 68 (1876).

a. as in *Hoplistoderaria* (p. 66).

b. Entire anterior lateral margins of the pronotum either anteriorly

serrated, denticulated or crenulated, acute or somewhat so: lateral angles of pronotum produced or prominulous: tibiæ above distinctly sulcated or flat and margined.

Genus TROPICORIS, Hahn.

Wanz. Ins. ii, p. 52 (1834): Stål, Ofvers. K. V.-A. Förh., p. 518, (1867); En. Hem. v, p. 69, 105 (1876).

Body elongate-ovate: head gradually narrowed, with the lateral margins anteriorly more or less rounded, entire, not sinuate; juga and tylus about of equal length; antennæ 5-jointed, almost three-fourths the length of the body, the first joint shortest, the second somewhat shorter than the fourth or fifth, the third longest, the fourth as long as the obtusely rounded fifth: rostrum 4-jointed, second joint longest, last shortest; ocelli in a line with the eyes, small: posterior angles of pronotum, acutely produced; anterior margin of lateral process gradually rounded, or forming an angle towards the apex: hemelytra with the costal margin of the corium anteriorly straight, thence slightly rounded, a straight longitudinal vein on the inner margin, and a similar from the same source at the base, close to the outer margin; membrane with a broad limbus and some 5—7 veins: base of venter sometimes unarmed, sometimes tuberculate, and sometimes very briefly spinose.

260. TROPICORIS LÆVIVENTRIS, Stål.

Tropicoris læviventris, Stål, En. Hem. v, p. 105 (1876).

♀. Pale flavescent, above distinctly punctured black; punctures on anterior part of pronotum and on anterior part of costal area aenescent: membrane and wings sordid hyaline: dorsum of abdomen weakly croceous: connexivum fuscescens-testaceous, punctured (two apical segments excepted), segments with a pale marginal spot: venter levigate, spiracula black. As to form of pronotum and stature, somewhat like *T. rufipes*, Linn., from which it differs in its larger size, paler colour, finer punctuation on the dorsum, entire juga distant, lateral process of pronotum shorter, more obtuse, not reflexed, and anterior lateral margins very slightly sinuated, scutellum also in the apical part punctured black, in the marking on the dorsum of the abdomen and the connexivum, the venter impunctate, pro- and meta-stethium posteriorly remotely sprinkled with concolorous punctures, not black, corium sprinkled with small, somewhat rounded, impunctate spots: feet not marked: rostrum reaching the base of the venter, second joint somewhat longer than the third: anterior angles of pronotum sub-prominulous outwards in a small tooth: furrow of the orifices longer about by half than the first joint of

the antennæ: head posteriorly with a lateral spot, and in the middle with a larger levigate, somewhat quadrate spot, which has a double row of punctures in the middle (*Stål*). Long, 18; broad, 10 mill.

Reported from India.

261. TROPICORIS PUNCTIPES, Stål.

Tropicoris punctipes, Stål, En. Hem. v, p. 106 (1876).

♂. Above lurid and rather densely punctured fuscous; beneath with the antennæ, rostrum and feet pale sordid flavescent, the feet sprinkled fuscous: pectus and venter remotely punctured fuscous; median ridge on the venter broad, very obtusely rounded, levigate: membrane infusate: dorsum of abdomen sanguineous: connexivum punctured, fuscous, externally aenescent-fuscous, segments marked with a sordid flavescent median band: ventral spiracula black. ♂. with the genital segment broadly and rather deeply sinuated at the apex, apical margin prominulous on both sides at the sinus in a small dentiform tubercle, apical angles of the sixth segment of the abdomen somewhat obtuse, not rounded. Stature and punctuation like *T. rufipes*, Linn. from which it differs in the lurid colour of the entire dorsum, apex of scutellum concolorous and punctured, juga distant, anterior angles of pronotum not so much prominulous forwards, lateral process truncated at the apex, or somewhat sinuately truncated, apical angles equal, basal spine of venter somewhat slender, somewhat prominulous before the metastethium, rostrum somewhat shorter, reaching somewhat the apex of the second segment of the venter, also in the form of the genital segment in ♂. Furrow of the orifices short, shorter than the first joint of the antennæ: head posteriorly levigate with a spot at the eyes: second joint of the rostrum distinctly somewhat longer than the third (*Stål*). Long, 11; broad, 7 mill.

Reported from India.

Genus AGATHOCLES, Stål.

En. Hem. v, p. 69, 106 (1876).

Head broad, somewhat short, broadly rounded at the apex, lateral margins posteriorly sinuate, parallel before the sinus, rounded at the apex; second joint of rostrum much longer than the third; anterior margin of the lateral process of the pronotum straight up to the apex; entirely densely and distinctly punctured, anterior margin narrowly smooth behind the vertex: venter rather strongly convex. In *Amyntor*, Stål, the head is long, triangular, gradually narrowed, lateral margins anteriorly abruptly sinuate: anterior lateral margins of pronotum posteriorly straight: venter unarmed at the base.

262. AGATHOCLES LIMBATUS, Stål.

Agathocles limbatus, Stål, En. Hem. v, p. 106 (1879).

♂. Above lurid, rather densely and distinctly punctured black, and sprinkled between the punctures with small pallescent spots or protuberances; beneath black: extremity of the anterior lateral margins of the pronotum, lateral limb of the prostethium and broad limb of the venter, sordid rufescent. ♂. with the sixth ventral segment anteriorly rounded, truncated at the apex, apical angles slightly prominulous, straight. Head posteriorly with a levigate spot at the eyes, margins posteriorly sinuated, parallel before the sinus in the middle, anteriorly rounded: anterior margin of the pronotum very narrowly levigate behind the vertex; behind the eyes broadly truncated; anterior angles with a small tooth turning outwards; anterior lateral margins somewhat straight, somewhat sinuated in the middle, very narrowly reflexed, obsolete and obtusely crenulated before the middle; lateral angles straight, very slightly prominulous: lateral margin of the apex of the scutellum slightly reflexed: pectus remotely and distinctly punctured: abdomen broader than the pronotum, fuscous-violaceous on the dorsum: venter punctulate, the middle and the rufescent limb levigate: connexivum fuscous: first joint of antennæ black, second lurid, more than twice longer than the first: rostrum reaching the base of the venter, lurid: feet fuscous; coxæ, trochanters, base of femora, and the tarsi, lurid: membrane fuscous: wings sordid hyaline, very slightly infuscate towards the apex (*Stål*). Long, 20: breadth of abd. 12 mill.

Reported from India, Silhat.

Genus AMYNTOR, Stål.

Ofvers. K. V.-A. Förh. p. 519 (1867): En. Hem. v, p. 69, 107 (1876).

Head acutely triangular, gradually narrowed forwards; juga much longer than the tylus, contiguous before the tylus, a little hiscent and rounded at the extreme apex, lateral margins acute, anteriorly sinuate, prominulous behind the sinus in a somewhat obtuse angle, bucculæ somewhat continued through, moderately elevated; ocelli twice as far from each other as from the eyes; rostrum scarcely reaching the last coxæ, first joint extending a little beyond the bucculæ, second joint longer than the third; antennæ moderate, first joint not reaching the apex of the head, third joint almost twice as long as the second: anterior lateral margins of pronotum hardly sinuate, serrulate, lateral angles acute, rounded at the extreme apex, a little prominulous: costal margin of corium moderately rounded: abdomen rounded on both sides, apical angles of segments very slightly prominulous: venter unarmed at the base:

furrow of the odoriferous apertures not so long, abruptly abbreviated :
tibiæ broadly sulcate (*Stål*).

263. *AMYNTOR* *OBSCURUS*, Dallas.

Halys (*Dichelops*?) *obscurus*, Dallas (nec Westw.), Trans. Ent. Soc. v, p. 188, t. 19, f. 3, a-b, (1849).

Amyntor obscurus, Stål, En. Hem. v, p. 107 (1876).

♂, ♀. Body ovate : above brown, obscure, very thickly punctured : pronotum with the lateral angles somewhat prominent, margins pale or yellow : head, pronotum, and scutellum slightly clouded with yellowish : a reddish tint on the hemelytra ; membrane transparent, with a pitchy black spot at the internal basal angle, (this spot is concealed by the tip of the scutellum when the wings are closed) : margins of the abdomen projecting considerably beyond the hemelytra on each side : venter, pectus, legs, rostrum, and antennæ reddish or testaceous brown ; venter smooth, shining, the disc sparingly, the lateral margins very thickly and finely punctured : pectus sparingly punctured, more thickly so at the sides : legs punctured with black ; the tarsi darker : rostrum darker at the tip : antennæ with the two last joints black, except at the base (*Dallas*). Long, $14\frac{3}{4}$ —16 mill.

Reported from Sikkim.

Genus *COMPASTES*, Stål.

Ofvers. K. V.-A. Förh., p. 519 (1867) ; En. Hem. v, p. 69, 107 (1876).

Head flat, somewhat narrowed forwards, rounded at the apex ; juga longer than the tylus, somewhat hiscent at the apex, lateral margins acute, flattened, posteriorly very slightly sinuate ; bucculæ continued through, moderately elevated ; ocelli a little over twice more distant from each other than from the eyes ; rostrum extending somewhat beyond the last coxæ, first joint extending a little beyond the bucculæ, second joint longer than the third ; antennæ slender, first joint not reaching the apex of the head, second somewhat shorter than the third : lateral margins of pronotum somewhat obtuse, denticulate, lateral angles produced in a stout, broad, truncate, process, obliquely turning forwards, dentate on the margin ; anterior angles acutely prominulous : costal margin of corium anteriorly sinuate, thence much rounded before and at the middle, straight towards the apex : veins of membrane sparingly furcate : furrow from the odoriferous apertures somewhat long : abdomen roundly amplified before the middle, apical angles of segments a little prominulous ; base of venter unarmed : tibiæ broadly sulcate (*Stål*).

Type *Cimex boutanicus*, Dallas.

264. COMPASTES BOUTANICUS, Dallas.

Cimex ? *boutanicus*, Dallas, Trans. Ent. Soc. v, p. 190, t. 19, f. 4 (1849).

Compastes boutanicus, Stål, En. Hem. v, p. 107 (1876).

♀. Body ovate, above brown, obscure, thickly and strongly rugose-ly punctulate : head rather thickly punctured, nearly as broad in front as behind, and with the anterior margin strongly notched ; slightly wrinkled posteriorly : eyes pitchy ; ocelli yellowish : pronotum with the enlarged lateral angles considerably directed forwards, with five teeth at their apex, of which the third and fourth from the front are rounded, the others acute : a strong spine at each anterior angle of the pronotum, immediately behind the eyes, and the antero-lateral margins are strongly serrated : scutellum rather elongated, narrower towards the apex, which is less punctured than the rest of the body and margined with yellowish : hemelytra rather paler than the rest of the surface, thickly and coarsely punctured, and somewhat rugose ; membrane brown : the sides of the abdomen scarcely project beyond the hemelytra : abdomen beneath reddish-brown, smooth, impunctate : pectus paler with numerous scattered black punctures which are larger and closer together on the prostethium : a large dull wrinkled patch on each side of the meta- and meso-stethium : coxæ smooth ; legs yellowish brown, mottled with reddish-brown ; the 2-jointed tarsi are rather paler : antennæ pale yellowish-brown, the basal joint and the others at base and apex, paler : rostrum pale brown with the apex darker and the tip of the basal joint, pitchy black (*Dallas*). Body long, including membrane, 20 mill.

Reported from Sikkim (mihi).

265. COMPASTES TRUNCATUS, Distant.

Compastes truncatus, Distant, Trans. Ent. Soc. p. 351, t. 12, f. 10 (1887).

Brownish-ochraceous, covered with coarse and darker punctures ; connexivum luteous, with blackish spots at bases and apices of sutures : membrane brownish, veins darker : 1—3 joints of antennæ brownish, minutely darker at the apices ; second joint longer than the third : pronotum with lateral margins obtusely crenulate, the lateral angles produced into broad and apically truncated spines : body beneath and legs ochraceous, punctured with brownish : rostrum ochreous, apex pitchy, extending to second abdominal segment : ventral spine reaching intermediate coxæ (*Dist.*). Long, 16 ; exp. angl. pron. 10 mill.

Reported from Sikkim (mihi).

266. COMPASTES SPINOSUS, Distant.

Compastes spinosus, Distant, Trans. Ent. Soc. p. 351, t. 12, f. 11 (1887).

Above brownish, coarsely and darkly punctate : pronotum rugulose,

with a median longitudinal luteous line, the lateral margins with three prominent spines, the lateral angles broadly produced and somewhat obtusely spined posteriorly: membrane pale fuscous: body beneath brownish and darkly punctate: legs ochraceous, mottled and sprinkled brownish; sublateral margins of the sternum bronzy: rostrum ochraceous, apex pitchy, extending beyond the last coxæ (*Dist.*). Long, 17: exp. angl. pron. 8 mill.

Reported from Sikkim.

Genus PRIONOCHILUS, Dallas.

Rhaphigaster, subg. *Prionochilus*, Trans. Ent. Soc. v, p. 191 (1849); *Prionochilus*, Stål, Ofv. K. V.-A. Förh., p. 519 (1867); En. Hem. v, p. 69, 107 (1876). Includes *Lelia*, Walker, Cat. Het. ii, p. 406 (1867).

Head flat above, narrowed anteriorly, the juga passing the tylus, and united in front of it; apex of head rounded, with a very slight notch in the middle; eyes rather small, very slightly prominent, touching the anterior margin of the pronotum; ocelli small, situated rather behind the eyes, and nearer to them than to one another; antennæ 5-jointed, about half as long as the body; first joint short, not reaching the anterior margin of the head; the other joints gradually increasing in length towards the apex; 4—5 joints thickest, fourth slightly compressed; rostrum 4-jointed, reaching the base of the ventral spine, the first joint short, as long as the head, inclosed entirely in a groove, which reaches the base of the head; 2—3 joints equal, longer than the first; fourth as long as the first: pronotum declined anteriorly; the anterior margin strongly emarginate, almost in a semicircle, for the reception of the head; the lateral angles very prominent, acute and curved forwards, their points reaching beyond the line of the anterior angles; the anterolateral margins are strongly serrated, and there is a distinct tooth behind each lateral angle: scutellum long, passing the middle of the abdomen, the apex rounded and narrowed; membrane reaching beyond the apex of the abdomen, with eight longitudinal veins, of which the 3—5 from the inner margin spring from a basal cell; the 6—7 are united at the base and the eighth is very short: abdomen extending a little beyond the hemelytra on each side; beneath strongly ridged, with a strong basal spine, which extends forwards as far as the middle of the space between the intermediate and first pairs of legs: vulvar apparatus as in *Rhaphigaster*, &c.: mesostethium with a slight ridge in the middle: legs rather slender, the posterior longest: tibiæ grooved on the outside, and fringed with small stiff hairs, especially towards the apex: tarsi 3-jointed, pilose, basal and terminal joints equal; second very short: claws and pulvilli moderate (*Dallas*).

267. PRIONOCHILUS OCTOPUNCTATUS, Dallas.

Rh. (*Prionochilus*) *8-punctatus*, Dallas, Trans. Ent. Soc. v, p. 192, t. 19, f. 5 a—c. (1849).

Prionochilus octopunctatus, Stål, En. Hem. v, p. 107 (1876); Distant, A. M. N. H. (5 s.) iii, p. 45 (1879).

♀. Ovate, testaceous brown, opaque, beneath paler, above thickly and finely punctured with black: pronotum strongly rugosely-punctate, with four black dots arranged in a transverse line across the disc, from the base of one lateral angle to the other; the marginal serrations yellowish: scutellum less closely punctured than the pronotum, distinctly rugose, with four black dots at the base, placed two close to the posterior margin of the pronotum about the same distance from each other as from the lateral angles of the scutellum, the two behind these, forming with them a small square; on each side of the apex of the scutellum is a small yellow impunctate spot: hemelytra with the punctures arranged somewhat nebularly; a small impunctate spot on the disc, a little behind the middle: membrane transparent with a brownish tinge: ventral spine brown: legs, rostrum and antennæ brownish testaceous; the fourth joint of the antennæ, except its base, the fifth joint entirely, and the apex of the fourth joint of the rostrum, black (*Dallas*). Long, 22; breadth of pronotum, $12\frac{1}{2}$ mill.

Reported from Sikkim.

Genus PRIONACA, Dallas.

List. Hem. i, p. 291 (1851); Walker, Cat. Het., ii, p. 375 (1867); Stål, En. Hem. v, p. 69, 107 (1876).

Body short and broad: head nearly as broad as long, rounded and entire in front, juga meeting beyond the tylus; ocelli minute placed near the posterior angles of the eyes and close to the anterior margin of the pronotum: antennæ with the basal joint robust, not reaching the apex of the head; second joint slender, very long, twice the length of the head: rostrum not reaching the posterior coxæ, inserted on a level with the base of the antennæ at some distance from the front of the head; basal joint short, not passing the base of the head; second longest; third longer than the first, a little shorter than the second, fourth shortest: pronotum with the lateral angles produced into strong acute spines, the lateral margins distinctly crenulated: scutellum very little longer than broad, triangular, with the lateral margins waved, the apex rounded: coriaceous portion of the hemelytra much longer than the membrane, with the apical margin rounded; membrane with longitudinal veins: ventral spine not reaching the intermediate coxæ: sternum with a distinct median furrow for the reception of the rostrum (*Dallas*).

268. PRIONACA LATA, Dallas.

Prionaca lata, Dallas, List. Hem. i, p. 291 (1851); Walker, Cat. Het. ii, p. 375 (1867); Stål, En. Hem. v, p. 107 (1876); Distant, A. M. N. H. (5 s.) iii, p. 45 (1879).

♂. Above yellowish, very thickly punctured with black: pronotum with a large, slightly elevated, impunctate yellow spot on each side near the lateral margins before the middle: corium with a large, impunctate, yellow spot about the middle of the disc; membrane brownish, somewhat opaque, with the inner basal angle dark brown: body beneath fulvous, the pectus brighter than the abdomen which is somewhat opaque, impunctate, with the middle of the 3—5 segments, brown; the lateral margins brownish; the first segment and the ventral spine concolorous with the pectus which is slightly shining, more or less punctured with brown, with the antero-lateral margins and the lateral spines black: legs, rostrum, and the two basal joints of the antennæ fulvous (*Dallas*). Long, 13 mill.

Reported from Java, Silhat (mihi).

269. PRIONACA EXEMPTA, Walker.

Prionaca exempta, Walker, Cat. Het. iii, p. 569 (1868); Distant, A. M. N. H. (5 s.) iii, p. 45 (1879).

Testaceous, elliptical, thickly and minutely punctured: head rounded in front; fore part with brown punctures; hind part smooth; juga and tylus of equal length; eyes piceous not prominent; rostrum extending to the last coxæ, apex black; antennæ slender; first joint extending nearly to the front of the head; second much shorter than the third; fourth a little longer than the third: pronotum smooth, except the fore parts on each side where the punctures are brown; lateral angles acute, elongated, shorter than their breadth at the base; scutellum hardly ridged, attenuated towards the tip which is slightly acute: posterior angles of the apical abdominal segment elongated; ventral spine extending to the intermediate coxæ: legs slender: hemelytra with black punctures along the costa; membrane and wings pellucid (*Walker*). Body, long, 17—19 mill.

Reported from N. India, Sikkim (mihi), rare.

Genus PLACOSTERNUM, Am. & Serv.

Hist. Nat. Ins. Hém., p. 174 (1843); Dallas, List Hem. i, p. 351 (1851); Walker, Cat. Het. iii, p. 486 (1868); Stål, Ofvers. K. V.-A. Förh, p. 519 (1867); En. Hem. v, p. 69, 107 (1876).

Lateral margins of the head before the middle gradually rounded

and entire; juga not long, longer than the tylus, anteriorly converging; rostrum not extended behind the last pair of feet: first joint shorter than the much elevated bucculæ, second joint shorter, or somewhat so, than the third: ocelli close to the eyes: pronotum broad, lateral margins in part denticulate, posterior angles produced, straightly truncate at the tip: meso-stethial ridge robust, more or less prominulous anteriorly between the first pair of coxæ: meta-stethium elevated, sexangular, posteriorly sinuate, receiving the anteriorly rounded, depressed, basal tubercle of the venter: membrane rather transparent, veins somewhat regular: furrow from the odoriferous aperture produced to a considerable distance with the apical ridge or wrinkle: first joint of tarsi not so short, apical joint of last pair somewhat compressed or tectiform.

270. PLACOSTERNUM TAURUS, Fabricius.

Cimex taurus, Fabr., Spec. Ins. ii, p. 344 (1781); Mant. Ins. ii, p. 283 (1787); Ent. Syst. iv, p. 91 (1794); Stoll, Punaises, p. 25, t. 5, f. 34 (1788) ?

Edessa taurus, Fabr., Syst. Rhyng. p. 145 (1803).

Placosternum taurus, Am. & Serv., Hist. Nat. Ins. Hém. p. 174 (1843); Dallas, List, Hem. i, p. 351 (1851); Herr. Schäff., Wanz. Ins. ix, p. 305, f. 1002 (1853); Walker, Cat. Het. iii, p. 406 (1868); Stål, En. Hem. v, p. 107 (1876); Distant, A. M. N. H. (5 s.) iii, p. 45 (1879).

Body large; above altogether grey, below flavescent, feet punctured black: pronotal processes porrect, thick, compressed, very obtuse (*C. taurus*, Fabr.). *P. taurus*, Am. & Serv., is described as greyish yellow, spotted brown: venter yellowish: two brown rings at the end of the femora, the rest of the feet, also the antennæ, punctured black. Long, 21 mill.

Reported from Java, East. Arch., China, Siam, Singapore, Ceylon, India, Coromandel, Bombay, Silhat, Assam: the Indian Museum has specimens from Sikkim (mili).

271. PLACOSTERNUM CERVUS, Distant.

Placosternum cervus, Dist., Trans. Ent. Soc. p. 352 (1887).

Allied to *P. taurus* by the lateral angles of the pronotum being profoundly bisinuated at their apices, but much smaller than that species and having the lateral angles much more developed, being broadly and strongly produced upwards and forwards and deeply notched at each edge of the apex: the lateral angles are not simply crenulate, but shortly spinose (*Dist.*). Long, 19; exp. angl. pron. 17 mill.

Reported from Sadiya (Assam).

272. *PLACOSTERNUM ALCES*, Stål.

Placosternum alces, Stål, En. Hem. v, p. 107 (1876).

♀. Very like *P. taurus*; differs in having the lateral process of the pronotum longer, truncate at apex, with the apical angles prominulous in a small tooth; scutellum convex at the base, depressed behind the posteriorly rounded and gradually inclined convex part (*Stål*). Long, 21; broad, 12; exp. horns, 16 mill.

Reported from Ceylon, Calcutta (?).

273. *PLACOSTERNUM DAMA*, Fabricius.

Cimex dama, Fabr., Ent. Syst. iv, p. 92 (1794); Wolff, Ic. Cim. i, p. 6, t. 1, f. 6 (1800).

Edessa dama, Fabr., Syst. Rhyng., p. 147 (1803).

Placosternum dama, Stål, Hem. Fabr. i, p. 34 (1868); En. Hem. v, p. 108 (1876).

♂, ♀. Sordid yellow-whitish, punctulate ferruginous-fuscous: 1—3 joints of antennæ also basal half of fourth joint, sprinkled fuscous-ferruginous, last ferruginous, pallid at the base; membrane grey, veins fuscous: feet sprinkled ferruginous: anterior lateral margins of the pronotum somewhat sinuated, obtusely crenulated, lateral angles obtusely produced, obliquely truncated at the apex and anteriorly sinuate; apical margin of the corium very slightly sinuated outwards. The ♂ has the anal segment deeply subsemicircularly sinuated at the apex, apical angles acute. Close to *P. taurus*, Fabr., but is smaller, lateral angles of pronotum not so long and less deeply produced, more obliquely truncated at the apex and unisinuate, anterior lateral margins somewhat straight before the middle, scarcely rounded, more obsoletely and more obtusely crenulated (*Stål*): Long, 16—19; broad, 10—11 mill.

Reported from India: Dikrang (Assam).

Genus *AMASENUS*, Stål.

Trans. Ent. Soc., p. 601 (1863); Ofvers. K. V.-A. Förh., p. 519 (1872); En. Hem. v, p. 69, 108 (1876).

Body oval depressed: juga longer than the tylus, somewhat distant; rostrum reaching base of third ventral segment; antennæ 5-jointed, somewhat short, second joint shorter than the third: lateral margins of pronotum crenulate: scutellum posteriorly produced rather far, sides of produced part parallel: sterna not elevated; posterior feet distant (*Stål*).

274. *AMASENUS CORTICALIS*, Stål.

Amasenus corticalis, Stål, Trans. Ent. Soc. (3 s.) i, p. 602 (1863); Walker, Cat. Het. iii, p. 487 (1868); Stål, En. Hem. v, p. 108 (1876).

♀. Greyish-stramineous, remotely punctulate fuscous: large basal patches on pronotum and some scattered, confluent patches on corium

subæneous-black : lateral streak on pro-stethium obscurely æneous : band near the apex of the femora and two bands on the tibiæ, fuscous : head somewhat lobate on both sides before the eyes, slightly sinuate before the lobe, sides thence somewhat parallel, juga very obliquely sinuately truncate towards the apex : lateral angles of pronotum prominent, somewhat sinuately truncate at the apex, anterior lateral margins sinuate in the middle, rounded and crenulated before the sinus : scutellum slightly bigibbous at the base (*Stål*). Long, 24 ; broad, 13 mill.

Reported from Ligor, Malacca, Assam.

Species of doubtful position.

275. *Pentatoma bengalensis*, Westwood, Hope, Cat. Hem. i, p. 36 (1837) ; *Stål*, En. Hem. v, p. 126 (1876).

Fulvescent, punctured black ; head with black lines between the eyes ; antennæ fuscous ; anterior part of pronotum with a submarginal line of black dots and other dots arranged on both sides in the shape of an irregular triangle : scutellum with a small levigate space on both sides at the base : apical spot on corium, rufous : membrane hyaline : abdomen beneath with a median line of spots and a submarginal line on both sides, black (*Westw.*). Long, 9—10 mill.

Reported from Bengal.

276. *Pentatoma albo-notata*, Westwood, Hope, Cat. Hem. i, p. 37 (1837) ; *Stål*, En. Hem. v, p. 126 (1876).

Narrower than *P. bengalensis*, *Westw.*, somewhat parallel ; black, punctured : band on the disc of the pronotum abbreviated : spots on the scutellum of an irregular Y-shape, large triangular spot on corium at the apex, coxæ, intermediate tibiæ in the middle, and median band on the abdomen, white : extreme tip of membrane, hyaline (*Westw.*). Long body, 8—9 mill.

Reported from Gambia (*Westw.*) ; Bengal (*Stål*).

277. *Pentatoma unicolor*, Westwood, Hope, Cat. Hem. i, p. 41 (1837) ; *Stål*, En. Hem. v, p. 127 (1876).

Allied to *Pentatoma juniperina*, *Fabr.*, but form of pronotum distinct : sides of pronotum angularly prominent, subacute : above leek-green, somewhat opaque, punctured : membrane fuscous ; body beneath with the feet paler ; antennæ green, two last joints, fuscous (*Westw.*). Long, 12-13 mill.

Reported from Bengal. *Westwood* (p. 38, l. c.) gives this name to a second species from Java which is one with *Nezara viridula*, *Linn.*

278. *Pentatoma indica*, Westwood, Hope, Cat. Hem. i, p. 42 (1837) ; *Stål*, En. Hem. v, p. 127 (1876).

Luteous-fuscous, punctured black, shining, broad : posterior angles

of the pronotum a little prominent, rounded, fulvous at the apex : veins on hemelytra longitudinal : abdomen beneath with a large, longitudinal, median, black spot (*Westw.*). Long, body, 8—9 mill.

Reported from Bengal.

279. *Pentatoma lateralis*, Westwood, Hope, Cat. Hem. i, p. 43 (1837) ; Stål, En. Hem. v, p. 127 (1876).

Fuscous, sub-opaque, punctured-black ; sides of pronotum margined paler, somewhat emarginate in the middle, posterior angles not prominent : membrane pallid, smoky, with five fuscous longitudinal veins : abdomen beneath piceous ; margin paler : feet palely luteous (*Westw.*) Long, body, 8—9 mill.

Reported from Bengal.

280. *Pentatoma crassiventre*, Dallas, T. E. S. v, p. 189 (1849) ; Stål, En. Hem. v, p. 130 (1876).

♀. Body roundish : above olive-testaceous, opaque, thickly and finely punctured with black : head very thickly and rather coarsely punctured : eyes brown : pronotum with the lateral angles considerably produced on each side, but rounded at the apex ; emarginate anteriorly for the reception of the head, the posterior margin straight : the anterior portion of the pronotum is more thickly punctured than the posterior, with a faint transverse line on each side near the anterior margin, and a very narrow longitudinal line on the disc, smooth, impunctate : scutellum rather more faintly punctured towards the apex : hemelytra with a small impunctate spot on the disc ; the membrane transparent : dorsum of abdomen pitchy black, the margins testaceous, very thickly punctured with black : beneath testaceous, smooth, slightly shining : abdomen convex, punctured with black, the punctures very close together towards the margins, thus forming a broad cloudy line down each side within the line of stigmata ; the base of the second segment, and a large spot in the middle of the 5—6 segments, black : pectus and underside of head concolorous with the abdomen : legs pale testaceous, with distinct pitchy punctures ; those on the femora much larger than those on the tibiæ ; the apices of the latter and the tarsi tinted with ferruginous : antennæ with the two basal joints pale testaceous ; rostrum of the same colour, with the apex pitchy black (*Dallas*). Body long, 9 ; breadth of pronotum, $6\frac{1}{2}$ mill.

Reported from Sikkim.

281. *Pentatoma fimbriata*, Westw. (nec. Fabr.) Hope, Cat. Hem. i, p. 39 (1837) ; Stål, En. Hem. v, p. 127 (1876).

Grass-green above and beneath ; above, punctured, shining : hemelytra luteous, punctured, varied with brunneous, external margin greenish ; large internal patch or streak on the membrane fuscous :

three last joints of the antennæ, black at the apex (*Westw.*). Body, long, 9-10 mill.

Reported from Bengal.

282. *Pentatoma lateralis*, Walker (nec. *Westw.*), Cat. Het. ii, p. 301 (1867).

Tawny, oval, thickly and minutely punctured, pale yellowish beneath; punctures brown: head large; juga and tylus of equal length: rostrum extending to the hind coxæ; tip black: antennæ testaceous, a little less than half the length of the body; first joint not extending to the front of the head; second blackish at the tip, much longer than the third; 3—5 joints pale yellowish, black towards the tips; fourth much longer than the third; fifth longer than the fourth: pronotum with pale yellowish slightly reflexed sides; posterior angles slightly acute and prominent: scutellum attenuated towards the tip, not extending beyond the angle of the corium; tip bordered by a pale yellowish line which is dilated at each end: pectus and abdomen beneath thinly black speckled: abdomen above ochraceous; beneath with an irregular black stripe, which does not extend to the tip: legs slender, pale yellowish; femora and tibiæ black speckled; tibiæ furrowed: hemelytra greenish testaceous, reddish testaceous along the costa; membrane pale cinereous, with nine pale longitudinal veins, of which the fifth is forked near its tip and united with the sixth near the base; wings pellucid (*Walker*). Long, $11\frac{1}{2}$ mill.

Reported from India, Siam: resembles *Halyomorpha picus*, Fabr., in structure; the eyes and the angles of the pronotum being less prominent.

283. *Pentatoma vicaria*, Walker, Cat. Het. ii, p. 303 (1867).

Grass-green, elongate-oval, thickly and minutely punctured, indistinctly tinged here and there with red, pale yellowish green beneath: head yellow, elongate; hind part green; juga and tylus of equal length: rostrum extending to the last coxæ; tip black: antennæ greenish, less than half the length of the body; joints successively increasing in length; first not extending to the front of the head: pronotum with a broad yellow band along the fore border, the hind border of this band dentate; hind angles obtuse, not prominent: scutellum extending a little beyond the angle of the corium, attenuated towards the tip, with three yellow points at the base: abdomen beneath slightly ridged: legs slender: membrane pellucid (*Walker*). Body, long, $13\frac{1}{2}$ mill.

Reported from India.

284. *Pentatoma inconcisa*, Walker, Cat. Het. ii, p. 301 (1867).

Tawny, elongate-oval, roughly punctured, beneath testaceous, punctures black: head elongate, tylus and juga of equal length, the former

very thinly punctured, forming a very slight ridge: rostrum extending to the last coxæ, apex black: antennæ black, less than half the length of the body, 3—5 joints successively increasing in length, first testaceous not reaching front of the head, second longer than the third: pronotum with a hardly elevated transverse line near the anterior margin, an indistinct tubercle on each side in front of the line, the posterior angles obtuse but not prominent; scutellum reaching beyond the bend of the corium, narrowed towards the apex which is levigate and luteous; most of the punctures clustered in five patches of which one is on each side of the base, one on the disc, and one on each side beyond the middle: abdomen not emarginate at the apex; connexivum with a black dot at the base of each segment: legs stout, testaceous, thickly setulose, apex of tarsi, black: hemelytra with a few minute, levigate, luteous marks; membrane lurid with six longitudinal veins, of which 1—2 are united near the base (*Walker*). Long, $10\frac{1}{2}$ mill.

Reported from N. India.

285. *Pentatoma trispila*, Walker, Cat. Het. ii, p. 302 (1867).

Ferruginous, oval, shining, thinly sprinkled pale yellow, rather roughly punctured; beneath pale testaceous: head conical, with two pale testaceous streaks between the eyes; juga and tylus of equal length, the latter testaceous: rostrum extending to the last coxæ, tip black; antennæ testaceous, very slender, more than half the length of the body, joints successively increasing in length, first not reaching the front of the head, apex of third ferruginous, fourth black, with basal fourth part pale yellow, fifth black with basal third yellow: a transverse levigate luteous mark on each side of the pronotum near the anterior margin, sides pale testaceous, posterior angles obtuse not prominent: scutellum extending a little beyond the angle of the corium, a large pale yellow spot on each side at the base, and another at the apex: three black points on each side of the pectus: abdomen above black, with testaceous spots on each side: legs pale testaceous, minutely sprinkled black: apices of the tibiæ and of the joints of the tarsi, brown: membrane lurid (*Walker*). Long, $10\frac{1}{2}$ mill.

Reported from Siam.

Genus ASYLA, Walker.

Cat. Het. ii, p. 403 (1867).

Body elliptical; head large, much rounded in front; sides slightly reflexed: juga as long as the tylus which they partly overlap; rostrum extending nearly to the posterior margin of the second ventral segment: antennæ slender, first joint not extending to the front of the head; second much shorter than the third: pronotum serrated on each

side in front; anterior angles acute; posterior angles dilated, forming two short rectangular horns: scutellum rather small: pectus with a very slight ridge: abdomen somewhat concave above, slightly dentate along each side: legs rather long and slender; tibiæ furrowed; tarsi 3-jointed: membrane with five longitudinal veins, of which the subcostal one is forked (*Walker*). The structure of the head separates it from *Euschistus* and *Galedanta*.

266. *Asyla indicatrix*, Walker, Cat. Het. ii, p. 403 (1867).

Tawny, minutely and rather thinly punctured; punctures blackish; beneath testaceous, ferruginous speckled: rostrum with a black tip: antennæ black: pronotum most thinly punctured in front: scutellum much excavated at each anterior angle: tarsi brown: membrane lurid-cinereous: wings cinereous (*Walker*). Long, 21 mill.

Reported from India.

267. *Mormidea socia*, Walker, Cat. Het. ii, p. 262 (1867).

Dingy yellowish, elongate oval, largely punctured; punctures black; underside and legs pale yellow: head more thickly punctured than the pronotum; jugs and tylus of equal length; rostrum extending to the last coxæ; tip black; antennæ pale yellow, setulose; first joint extending nearly to the front; second longer than the third: pronotum with a transverse callus on each side near the anterior margin and with a smooth slight marginal ridge on each side between the spine and the anterior margin; spines black, stout, acute, slightly projecting forward: scutellum with the disc pale yellow and thinly punctured; three large smooth pale yellow spots, two on the fore angles and one at the tip: pectus, abdomen beneath and femora with a few black points: legs slender, setulose: membrane pellucid (*Walker*). Body, long, 8½ mill.

Reported from India.

268. *Mormidea nigriceps*, Walker, Cat. Het. iii, p. 554 (1868).

Tawny, elliptical, thickly and minutely brown punctured, testaceous beneath: head blackish, somewhat elongated; jugs and tylus of equal length; eyes piceous, prominent; rostrum extending a little beyond the last coxæ, tip black: pronotum with a slight transverse ridge, in front of which it is testaceous and thinly punctured; fore border and a line along the posterior border of the ridge, blackish; the usual transverse calli; posterior angles elongated, acute, a little shorter than their breadth at the base: scutellum smooth and pale yellow at the tip, which is rounded: legs slender; femora and tibiæ slightly brown-speckled: membrane and wings cinereous (*Walker*). Long, 10½ mill.

Reported from India.

269. *Rhaphigaster* (?) *macracanthus*, Dallas, List. Hem. i, p. 289 (1851); Walker, Cat. Het. ii, p. 365 (1867); (?) Stål, En. Hem. v, p. 129 (1876).

♀. Broad and short, somewhat rounded, above brown, somewhat ferruginous, very thickly and finely punctured with black: pronotum with the lateral angles very prominent and obtuse: scutellum very broad at the base: membrane brownish: margins of the abdomen bright reddish orange, with a small black band at the base and apex of each segment near the suture, leaving the suture itself orange: body beneath fulvous, thickly and rather finely punctured; the abdomen somewhat rugose; ventral spine very long, reaching the base of the head, pitchy brown, very smooth and shining; legs fulvous: rostrum testaceous, with the tip black: antennæ with the second joint very short, scarcely more than half the length of the third; the two basal joints testaceous; third joint black, with the base testaceous; 4—5 joints black, with their bases, dull orange or tawny (*Dallas*). Long, $11\frac{1}{2}$ —12 mill.; breadth of pronotum, 9 mill.

Reported from N. India.

270. *Rhaphigaster apicalis*, Dallas, List. Hem. i, p. 285 (1851); Walker, Cat. Het. ii, p. 281 (1867).

Antestia (?) *apicalis*, Stål, En. Hem. v, p. 129 (1876).

♀. Above pale greyish olive: head with six black punctured lines on the anterior portion which unite more or less on the vertex, making that part nearly black, with irregular pale spots: eyes brown; ocelli red: pronotum rather thickly punctured with black, the punctures arranged somewhat in transverse lines, with the anterior portion of the disc blackish, the anterior and lateral margins with a narrow whitish edge: scutellum rather thickly punctured with black, with a small orange spot in each basal angle, a large round black spot in the middle of the base, and a black spot on each lateral margin near the apex: coriaceous portion of the hemelytra rather thickly punctured with black, with the apex and a submarginal spot near the middle, black; membrane transparent, brownish: margins of the abdomen variegated with black and yellow, very thickly punctured: abdomen beneath, greyish-testaceous, with the sides rather thickly and strongly punctured with black; ventral spine long, reaching the intermediate coxæ: pectus testaceous, thickly punctured with black: legs testaceous; femora punctured with black; tarsi with the apical joint brown: rostrum testaceous, with the tip black: antennæ with the three basal joints testaceous; 4 and 5 black, with the base testaceous. (*Dallas*). Long, 9 mill.

Reported from N. India.

271. *Rhaphigaster bisignatus*, Walker, Cat. Het. ii, p. 366 (1867).

Testaceous, elongate-elliptical, thickly and minutely punctured; punctures black: juga and tylus equal in length: eyes rather prominent: rostrum extending nearly to the last coxæ; tip black; antennæ black, nearly half the length of the body, 1—2 joints tawny; first not extending to the front of the head; third a little longer than the second; fourth much longer than the third; fifth not longer than the fourth: pronotum transversely and very slightly impressed in front; a transverse triangular black mark with a testaceous disc on each side in front of the impression: scutellum less thickly punctured than the pronotum; a blackish dot on each side near the tip: abdomen black; connexivum testaceous; under side with two testaceous stripes which do not extend to the tip: ventral spine obtuse, extremely short, not extending to the last coxæ: femora and tibiæ with tawny tips; tibiæ slightly furrowed; tarsi tawny: corium with a brown apical patch, which is bordered on its inner side by an incomplete whitish band, the latter not punctured; membrane lurid: wings pellucid, pale lurid towards the tips (*Walker*). Body, long, $6\frac{1}{2}$ mill.

Reported from India.

272. *Rhaphigaster patulus*, Walker, Cat. Het. ii, p. 366 (1867).

Pale testaceous, ample, nearly elliptical, thinly punctured: head black-punctured in front; juga and tylus of equal length: rostrum extending to the last coxæ; tip black: antennæ slender, less than half the length of the body; first joint not extending to the front of the head; second much shorter than the third; fourth longer than the third: pronotum black punctured; the punctures more thick in front, excepting a transverse, abbreviated, slightly undulating line; posterior angles prominent, hardly acute: scutellum attenuated towards the tip: pectus not ridged; sides whitish testaceous: abdomen, in the ♂, excavated at the tip; ventral spine extending to the intermediate coxæ: legs slender: hemelytra with black punctures along the costa; membrane and wings pellucid (*Walker*). Long, $15\frac{1}{2}$ —19 mill.

Reported from N. India.

273. *Rhaphigaster strachoides*, Walker, Cat. Het. ii, p. 365 (1867).

Luteous; oval; thinly and rather finely punctured; punctures black: head black, with five luteous stripes, of which the inner pair are forked in front, and the outer pair are irregular and border the eyes; juga and tylus of equal length: rostrum black towards the tip, extending to the last coxæ: antennæ tawny, less than half the length of the body, joints successively increasing in length; first joint not extending

to the front of the head: pronotum in front with an abbreviated black band, which is dilated on each side, where it contains an interrupted luteous streak; space about the band smooth; hind angles much rounded, not prominent: scutellum with a callus on each angle at the base, and with a black spot on each side near the tip: pectus with three black stripes: abdomen beneath with three stripes of triangular black spots; of these the lateral spots are connected: legs reddish, short, stout: hemelytra with a black spot in the disc of the corium; membrane pellucid (*Walker*). Long, $5\frac{1}{2}$ —6 mill.

Reported from India.

274. *Rhaphigaster rubriplaga*, Walker, Cat. Het. ii, p. 365 (1867).

Testaceous, nearly oval, thickly punctured, slightly shining: head with a black slender marginal line along each side; juga and tylus of equal length: rostrum extending to the intermediate coxæ: antennæ tawny, less than half the length of the body; joints successively and slightly increasing in length; first not extending to the front of the head: pronotum slightly and transversely impressed on each side in front; a red patch on each side between the posterior angles, which are slightly rounded and not prominent: scutellum with a red spot on each side near the base and with a red band near the tip: abdomen with a black stripe on each side above, and with an incomplete brown stripe on each side beneath; tip truncate; ventral spine extending to the intermediate coxæ: legs rather short and stout: hemelytra with a red spot on the tip of the corium near the costa; membrane and wings pellucid (*Walker*). Long, $6\frac{1}{2}$ —7 mill.

Reported from India.

275. *Tetrisia bruchoides*, Walker, Cat. Het. i, p. 112 (1867).

Black: body convex, oval, dull, finely scabrous: head transverse, rounded in front, not more than half the breadth of the pronotum; eyes not prominent; rostrum reddish, extending beyond the last coxæ; antennæ rather stout and short: pronotum nearly twice the length of the head, with a transverse furrow in the middle, in front of which the sides are rounded and serrated; a short longitudinal furrow near each side of the hind part: scutellum broader than the pronotum, rounded at the tip, entirely covering the abdomen and the folded hemelytra, of which the membrane is dark brown: abdomen contracted: legs very short and stout (*Walker*). Long, $5\frac{1}{4}$ mill.

Reported from Singapore. Belongs to sub-family *Plataspina*.

Sub-fam. ASOPINA, Stål.

En. Hem. i, p. 21 (1870); Ofvers. K. V.-A. Förh., (3), p. 40 (1872); Distant, Biol. Cen. Amer., Hem., p. 26 (1879): *Asopida*, Dallas, List. Hem. i, p. 75 (1851); *Asopida*, Stål, Hem. Afric. i, p. 32, 62 (1864).

(a) to (d) as in sub-fam. *Pentatomina*, (J. A. S. B. Pt. II, p. 192, 1887).

(e) Rostrum long, passing the intermediate coxæ, stouter than in the preceding sub-family, sheath inserted at the labrum which is a little remote from the apex of the tylus: rostral furrow not coarctate anteriorly: first joint of the antennæ generally short and not longer than the longitudinal diameter of the eyes.

Genus ZICRONA, Am. & Serv.

Hist. Nat. Ins. Hém., p. 86 (1843): Sahlb., Mon. Geoc. Fenn., p. 18 (1848): Dallas, List. Hem. i, p. 108 (1851): Walker, Cat. Het. i, p. 145 (1867): Stål, Ofvers. K. V. A. Förh., p. 499 (1867); En. Hem. i, p. 36 (1870).

Body shining: second joint of the antennæ longer than the third; second joint of rostrum longest, shorter than the two apical taken together; juga not, or scarcely, longer than the tylus: anterior lateral margins of pronotum entire or very obsoletely eroded: frena not extended beyond the middle of the scutellum: second ventral segment not elevated in the middle: feet rather short, tibiæ without a furrow above, convex, at least towards the base, somewhat obtusely rounded, anterior pair not dilated.

276. ZICRONA CÆRULEA, Linnæus.

Cimex cæruleus, Linn., Syst. Nat., ed. 10, i, p. 445 (1758); 1. c. ed. 12, i (2), p. 722 (1767); De Géer, Mém. iii, p. 268 (1773); Fabr., Syst. Ent. p. 716 (1775); Spec. Ins. ii, p. 359 (1781); Mant. Ins. ii, p. 296 (1787); Gmelin, ed. Syst. Nat. i, p. (4), p. 2154 (1788); Wolff, Ic. Cim. i, p. 18, f. 18 (1800).

Pentatoma cæruleum, Hahn, Wanz. Ins. ii, p. 65, f. 154 (1834).

Asopus cæruleus, Burm., Handb. Ent. ii, (1), p. 378 (1835); Herr. Schöff., Wanz. Ins. vii, p. 112 (1844); Flor, Rhynch. Liv. i, p. 90 (1860).

Pentatoma cinnina, Westwood, Hope, Cat. Hem. i, p. 39 (1837).

Pentatoma violacea, Westwood, l. c. p. 39 (1837).

Stiretrus cæruleus, Blanchard, Hist. Nat. Ins. p. 154 (1840).

Zicrona illustris, Am. & Serv., Hist. Nat. Ins. Hém. p. 87 (1843); Vollen., Fauna Ent. l'Arch. Ind. Neer. iii, p. 15 (1868).

Zicrona cærulea, Am. & Serv., Hist. Nat. Ins. Hém. p. 86 (1843); Dallas, List. Hem. i, p. 108 (1851); Fieber, Eur. Hem. p. 346 (1861); Douglas & Scott, Brit. Hem. i, p. 88 (1865); Walker, Cat. Het. i, p. 145 (1867); Stål, En. Hem. i, p. 36 (1870); Scott, A. M. N. H. (4 s.), xiv, p. 289 (1874); Saunders, Trans. Ent. Soc. p. 123 (1875); J. Sahlbohm, K. V.-A. Handl., xvi (4) p. 15 (1879); Distant, Scien. Res. 2nd Yarkand Miss. p. 3 (1879); Trans. Ent. Soc. p. 415 (1883).

“Cærulean-blue, immaculate” is the short description given by the earlier writers. Serville describes this species as having the body, feet, and antennæ metallic greenish-blue shining; body above finely punctured. *Z. illustris*, Am. & Serv., differs only in being metallic blue not greenish-blue, like *Z. cærulea*. The *P. concinna* of Westwood is described as larger than *Z. cærulea*, altogether black with cærulean and purple reflections, antennæ and feet black. The *P. violacea*, Westw., scarcely differs from the preceding, but is altogether more violaceous and somewhat punctured. Others give bright blue or blue-green, shining, punctured: legs and antennæ, black. Dallas and Stål (*l. c. supra*) record fully the synonymy and references to figures. Long 9—10 mill.

Reported from all Europe, N. W. Siberia, Japan, China, Bengal, India, Malacca, Java, Borneo, Bujkoti in Jaunsár Báwar, 7,000 feet (mih).

Genus CECYRINA, Walker.

Cat. Het. i, p. 118 (1867).

Body very elongate-oval, rather flat: head and pronotum rather largely punctured: head not much shorter than the pronotum, a little narrower in front of the eyes, with a slight ridge which emits two short slight forks on each side between the eyes: eyes very prominent: rostrum stout, extending to the last coxæ: antennæ very minutely pubescent, about half the length of the body, first joint stout, second shorter than the third, 4—5 a little broader and longer than the third: scutum slightly rugulose, not longer than broad, the forepart much contracted: scutellum with a slight ridge, narrowed towards the apex, which is rounded: legs rather stout; first femora with a spine beneath the apex; first tibiæ much dilated: the elongate hardly convex body, the shape of the head, and the margined pronotum distinguish this genus from *Cazira* (*Walker*).

277. CECYRINA PLATYRHINOIDES, Walker.

Cecyrina platyrhinoides, Walker, Cat. Het. i, p. 119 (1867).

Tawny, irregularly and more or less speckled with piceous, the latter hue partly predominating: head piceous, with a tawny longitudinal line: rostrum piceous: antennæ reddish; 4—5 joints piceous, fourth with a whitish band near the base: abdomen above very dark red, with tawny spots along each side: membrane cinereous, with two curved brown bands: wings cinereous (*Walker*). Body, long, 11—12½ mill.

Reported from India.

Genus BLACHIA, Walker.

Cat. Het. i, p. 117 (1867) : includes *Sesha*, Dist., Trans. Ent. Soc. p. 343 (1887).

Body short-oval, convex, shining : head about half the length and about one-fifth of the breadth of the pronotum ; juga and tylus of equal length ; rostrum moderately stout, extending to the last coxæ ; antennæ slender, very minutely setulose, rather more than half the length of the body, 2—5 joints successively slightly increasing in length : pronotum thinly and finely punctured, nearly twice broader than long, forming an acute angle on each side of the fore border, with an acute diverging spine on each side posteriorly : scutellum slightly contracted posteriorly, hardly extending beyond the corium : legs hardly stout, fore femora with a spine beneath near the apex ; fore tibiæ much dilated.

278. BLACHIA DUCALIS, Walker.

Blachia ducalis, Walker, Cat. Hem. i, p. 117 (1867).

Sesha manifesta, Distant, Trans. Ent. Soc., p. 343, t. 12, f. 2 (1887).

Testaceous : head with a small purple spot on each side of the posterior margin : pronotum with five purple spots, of which two near anterior margin are much smaller than the three in a transverse row near posterior margin : scutellum with a very large purple spot on each side near the base and with a purple spot on each side behind the middle : pectus with three purple patches on each side : abdomen beneath on each side with an inner stripe of three purple spots and an outer stripe of two purple spots : hemelytra with a large purple spot joining the middle of the costa and a smaller apical purple spot ; membrane colourless with two broad brown streaks, one capitate ; wings brown (*Walker*). Body, long, $10\frac{1}{2}$ —12 mill.

Reported from Siam, Sikkim (mihi).

Genus CAZIRA, Am. & Serv.

Hist. Nat. Ins. Hém. i, p. 78 (1843) : Dallas, List. Hem. i, p. 82 (1851) ; Walker, Cat. Het. i, p. 117 (1867) : Stål, Hem. Afric. i, p. 62 (1864) : En. Hem. i, p. 38 (1870).

Body somewhat short, stout : scutellum with vesicular tubercles at the base : venter at the base with a small spine directed forwards and not extending beyond the insertion of the posterior feet : all the femora with a spine beneath towards the apex ; anterior tibiæ much dilated : rest as in *Asopus* (*Am. & Serv.*).

279. *CAZIRA VERRUCOSA*, Westwood.

Pentatoma verrucosa, Westwood, Zool. Journ. v, p. 445, t. 22, f. 7 (1835).

Asopus verrucifer, Burmeister, Handb. Ent. ii, (i), p. 380 (1835).

Cazira verrucosa, Dallas, List. Hem. i, p. 82 (1851), excl. syn. *Linnæi*; Walker, Cat. Het. i, p. 117 (1867) excl. do.: Stål, En. Hem. i, p. 38 (1870); Distant, A. M. N. H. (5 s.) iii, p. 45 (1879).

Rufous-testaceous, variegated with fuscous, punctured, subrotundate; posterior sides of pronotum on both sides unispinose; dorsum with several elevated oblique lines; scutellum at the base with two large, round, rufous tubercles, and two other small lateral tubercles; posteriorly narrowed and produced to the apex of the abdomen, posterior part concave, sides elevated: corium rufous, punctured with black and the apical membrane produced to a distance beyond the abdomen; sides of abdomen visible, serrated: antennæ longer than the pronotum, 2—3 joints equally long, also 4—5 which are a little longer than the two preceding: femora beneath unispinose, first pair stouter; the two first tibiæ dilated, four posterior simple, rufous, with a white ring. (*Westw.*).

Variable in coloration, sometimes fuscous-piceous, sometimes cinnamon-yellow; pronotum with a longitudinal median wrinkle or ridge, a transverse discoidal wrinkle behind the middle, recurved on both sides, anteriorly with two lateral tubercles and behind the tubercles a less distinct obliquely longitudinal wrinkle which is sometimes confluent with the posterior tubercle; apical part of scutellum more or less concave, apex more or less distinctly emarginate (*Stål*). Body with hemelytra long, $10\frac{1}{2}$ —11 mill.

Reported from Malabar, Dekkan, India, Assam. The Indian Museum has specimens from Sikkim, Sibságar (Assam), and Calcutta (*mihi*).

280. *CAZIRA INTERNEXA*, Walker.

Cazira internexa, Walker, Cat. Het. i, p. 118 (1867).

Ochraceous, thick, shining, roughly tuberculate: head about one-fifth the breadth of the pronotum; juga extending somewhat beyond the tylus; rostrum black; antennæ black, 2—4 joints successively increasing in length, fifth a little shorter than the fourth: pronotum with prominent obtuse spines: scutellum with a hump on each side at the base and with two slight longitudinal furrows: legs black, stout; coxæ, first femora at base and last towards the base, luteous; first tibiæ much dilated: membrane black, with a limp spot on the costa before

the middle, and one on the hind border beyond the middle. Distinguished from preceding by the comparatively smooth hinder part of the scutellum (*Walker*). Long, $9\frac{1}{2}$ mill.

Reported from Cambodia.

281. CAZIRA ULCERATA, Herrich-Schäffer.

Asopus ulceratus, Herr.-Schäff., Wanz. Ins. iv, p. 103, t. 103, f. 452 (1839) and vii, p. 114 (1844).

Cazira ulcerata, Dallas, List. Hem. i, p. 82 (1851); Walker, Cat. Het. i, p. 118 (1867); Stål, En. Hem. i, p. 39 (1870).

Miniaecous: pronotum at the base with raised tubercles, lateral angles produced widely outwards and a little forwards into a spine, of which the lateral margins are sinuate before the apex: scutellum with tubercles at the base: a spot in the middle of the hemelytra, the antennæ, tarsi and apex of last tibiæ, black; the last tibiæ in the middle, white: membrane brownish, with a white spot in the middle of the outer margin: venter spinose at the base: first pair of tibiæ very strongly dilated, the tooth-like inner edge of the tip, black; fore femora with a tooth. Long, 8 mill.

Reported from Hong-Kong, Siam, Calcutta (mihi), Coromandel.

282. CAZIRA CHIROPTEA, Herrich-Schäffer.

Asopus chiropterus, Herr.-Schäff., Wanz. Ins. v, p. 78, t. 170, f. 523 (1839); vii, p. 113 (1844).

Cazira verrucosa, Am. & Serv., Hist. Nat. Ins. Hém., p. 78, t. 3, f. 8 (1843): excl. syn.

Cazira chiroptera, Dallas, List. Hem. i, p. 82 (1851); Walker, Cat. Het. i, p. 118 (1867); Vollenhoven, Faun. Ent. Ind. Neerl. iii, p. 4 (1868): Stål, En. Hem. i, p. 39 (1870).

Ferruginous: coarsely punctured: pronotum with a raised smooth median line; lateral angles acutely produced; four black spots, of which one on each side near the lateral angles: base of scutellum with spherical, raised tubercles, a black spot at base and apex: a rounded black spot near the apex of the hemelytra and the apex itself, black; wings fuscous: legs luteous: beneath two spots at the base, and two before the end of the abdomen. Long, 10 mill.

Reported from Java, Sumatra, Borneo, Malacca.

Genus CANTHECONA, Amyot & Serville.

Hist. Nat. Ins. Hém., p. 81 (1843); Dallas, List. Hem. i, p. 89 (1851); Walker, Cat. Het. i, p. 130 (1867); Stål, Hem. Afric. i, p. 62, 66 (1864); En. Hem. i, p. 41 (1870):—*Cimex*, subg. *Canthecona*, Ofvers. K. V.-A. Förh., p. 49 (1867).

Head somewhat flat; two apical joints of rostrum of equal length, each a little shorter than the second: anterior lateral margins of the

pronotum more or less distinctly crenulated or transversely rugose : frena extended to, or a little beyond, the middle of the scutellum : venter, at the base, furnished with a tubercle or short spine, obtusely conical ; stridulatory spots, in ♂, extended through 4—5 ventral segments, sericeous : first tibiæ not dilated, first femora with a distinct spine.

283. *CANTHECONA BINOTATA*, Distant.

Canthecona binotata, Dist. A. M. N. H. (5 s.) iii, p. 47 (1879).

Luteous, thickly punctured with brown : tylus reaching the apex of the head, juga thickly covered with brassy black punctures : eyes prominent, fuscous, luteous at the base : antennæ with 2—3 joints sub-equal, fourth rather longest, 1—2 joints luteous, 3—4 dark fuscous, luteous at the base : rostrum luteous, with the tip reddish : pronotum considerably deflexed from the base towards the head, with a median raised longitudinal line, which is prolonged throughout the whole length of the scutellum ; lateral edges, with an indistinct, obscure, violet, submarginal border, and some other indistinct striæ of the same colour on the disc ; lateral angles produced into short, obtuse, black spines, emarginate and luteous at the tip : scutellum somewhat gibbous at the base, where it is thickly and darkly punctured, the median longitudinal line becoming broad and impunctate towards the apex : corium with a somewhat triangular subcostal blackish spot situated a little beyond the middle : membrane produced considerably beyond the abdomen, black, with the apical half whitish : abdomen above blackish, with a segmental marginal row of alternate sub-quadrangle green and luteous spots : body beneath luteous ; pectus with three violet streaks on each side ; venter with the marginal row of sub-quadrangle green spots as above, a sub-marginal row of narrow, transverse, wavy, dark lines, situate one on each segment, and a large sub-apical blackish spot : legs luteous, pilose ; tibiæ strongly sulcated ; fore tibiæ dilated, their apical halves and bases and the apices of the intermediate and posterior tibiæ, blackish (*Distant.*) Allied to *C. tibialis*, Dist. Long, 15 ; exp. lat. angles of pronotum, $7\frac{1}{2}$ mill.

Reported from Naga Hills, 2000—6000 feet (Assam) ; Calcutta, Dehra (mihi).

284. *CANTHECONA TIBIALIS*, Distant.

Canthecona tibialis, Distant, A. M. N. H. (5 s.) iii, p. 46 (1879).

Head brassy black, very thickly punctured ; tylus reaching the apex of the head, with its base obscurely luteous ; eyes brown : antennæ pilose ; 3—4 joints longest, sub-equal ; apical joint rather shorter than

the second, which is brown, the 3—4 joints blackish with their bases narrowly brown, fifth dark fuscous with basal third luteous: rostrum luteous, tip blackish: pronotum brassy black, very coarsely punctate, and lightly and irregularly rugulose, with a slightly raised median longitudinal line and irregular luteous markings, which indicate faintly four longitudinal striæ, two on each side of the median line; the crenulated portion of the margin and a small spine behind the eyes, luteous; lateral angles produced into short, black, obtuse spines, strongly emarginate at the apex: scutellum with the basal half brassy black, very thickly punctured; apical half paler and more sparingly punctured, with a small median basal spot, a large rounded spot in each basal angle, two small irregular and indistinct markings beneath these, and the apex, broadly luteous: corium luteous, somewhat thickly marked and punctured with black; on the underside, at the apex, is a large reddish spot: membrane fuscous, with two large whitish spots, one on the outer and the other on the inner border: abdomen above shining green, very thickly punctured, with a marginal row of three luteous spots, which appear on the margins of alternate segments above and below: body beneath luteous, pectus thickly punctured with brassy black: abdomen with a median, narrow, longitudinal, impunctate area, from which it is sparingly punctate halfway to the outer border, which is very thickly punctured with brassy black, a large black sub-apical spot: legs luteous, with the apices of the femora, and bases and apices of intermediate and posterior tibiæ, brassy black; fore-tibiæ very widely dilated and strongly punctured black; first tarsi black, rest luteous, with apex black; tibiæ strongly sulcated (*Distant*). Long, 17; exp. lat. ang. pronotum, 9 mill.

Var. *a*. Smaller, with the ground-colour brownish instead of brassy black. Allied to *C. furcellata*, Wolff, from which it differs principally in the shorter and obtuse lateral angles of the pronotum.

Reported from N. Khasiya Hills, 1500—3000 feet; Sikkim (mihi).

285. CANTHECONA FURCELLATA, Wolff.

Cimex furcellatus, Wolff, Ic. Cim. v, p. 182, t. 18, f. 176 (1801).

Asopus armiger, Herr.-Schäff., Wanz. Ins. vii, p. 113, 119, f. 711 (1844).

Canthecona furcellata, Dallas, Uist. Hem. i, p. 91 (1851); Walker, Cat. Hët. i, p. 130 (1867); Vollenhoven, Faune Ent. l'Arch. Indo-Néer. iii, p. 5 (1868); Stål, En. Hem. i, p. 42 (1870).

Antennæ 5-jointed, yellow-ferruginous, joints fuscous at the apex: head porrect, obtuse, impressly-punctured, variegated fuscous and yellow, with a paler longitudinal line; eyes fuscous: rostrum 4-jointed, ferruginous, fuscous at the apex: pronotum greyish, variegated anteriorly with fuscous, posteriorly with very many impressed fuscous punctures,

with a small anterior longitudinal yellow line; lateral margin serrulate, posteriorly on both sides with a bifid fuscous spine of which the posterior tooth is the shorter: scutellum greyish with numerous impressed fuscous punctures, obscurely at the base with three minute rufous points; a longitudinal line and the apex, paler: hemelytra greyish with impressed fuscous punctures and an obsolete fuscous median line; membrane fuscous with two pale opposite marginal spots before the apex: abdomen above black, margin prominulous, spotted yellow, beneath testaceous, with a row of very minute fuscous spots on both sides, margin somewhat serrate, sternum somewhat porrect anteriorly: pectus testaceous, spotted fuscous: anus obtuse, bidentate: feet testaceous; first femora with a very acute tooth before the apex; tarsi fuscous (*Wolff.*). Long, 15—16 mill.

Reported from India, Bombay, Tenasserim, Berhampur, Arrah (mihi).

Genus AUDINETIA, Ellenrieder.

Nat. Tijdschr. Ned. Ind. xxiv, p. 136 (1862): *Cimex* subg. *Audinetia*, Stål, *Ofvers. K. V.-A. Förh.*, p. 496 (1867); *En. Hem.* i, p. 45 (1870).

Head oblong; juga a very little longer than the tylus: second joint of antennæ long, 3—5 joints nearly equal (fourth longer): eyes small, globose, not very prominent: ocelli distinct, close to the pronotum, as far from each other as from the eyes: pronotum declined forwards, convex behind, the anterior margin narrower than the head, sinuated, posterior angles very prominent, transverse, with a bifid spine of which the anterior terminal point is very acute, the posterior somewhat short: hemelytra and abdomen rather elongate, attenuated hindwards: the sides of the abdomen extending a little beyond the hemelytra: membrane albescent, with 7—9 veins, longer than the abdomen: venter from the median line inclined convexly towards the sides; ventral tooth short, not extending beyond the insertion of the last pair of feet: rostrum scarcely reaching the posterior feet, its joints almost equal, but the second long, the last short: femora robust, unarmed; first tibiæ prismatic, unispinose on the lower (inner) side; tarsi robust, first joint long, second very small, hardly visible. Distinguished from *Arma*, Hahn, by the ventral tooth; from *Canthecona*, Am. & Serv., by the first femora being simple, and from others by the spine on the inner side of the first tibiæ (*Ellenr.*). Stål separates it from *Canthecona* by its having the stridulatory spots in ♂ very large, extended through the 3—6 ventral segments: first femora beneath with a small, sometimes very obsolete, tubercle.

286. AUDINETIA SPINIDENS, Fabricius.

Cimex spinidens, Fabr., Mant. Ins. ii, p. 285 (1787); Ent. Syst. iv, 99 (1794); Gmelin, Syst. Nat. i, (4), p. 2139 (1788); Fabr., Syst. Rhyng., p. 161 (1803).

Asopus geometricus, Burm., Handb. Ent. ii, (i), p. 380 (1835).

Arma geometrica, Dallas, Trans. Ent. Soc. v, p. 187, t. 19, f. 2 (1849).

Picromerus spinidens, Dallas, List Hem. i, p. 95 (1851); Walker, Cat. Het. i, p. 133 (1867).

Pentatoma aliena, Westw., Hope, Cat. Hem. i, p. 40 (1837)?

Audinetia aculeata, Ellenrieder, Nat. Tijdschr. Ned. Ind., xxiv, p. 137, f. 1, (1862); Walker, l. c., iii, p. 532 (1868).

Arma spinidens, Vollenhoven, Faune Ent. l'Arch. Indo-Néer. iii, p. 10 (1868).

Cimex (Audinetia) spinidens, Stål, Hem. Fabr. i, p. 16 (1868); En. Hem. i, p. 45 (1870).

Audinetia spinidens, Distant, Biol. Cen. Am. Hem. p. 35 (1879); A. M. N. H. (5 s.) iii, p. 45 (1879); Lethierry, An. Mus. Gen. xviii, p. 742 (1883).

Fuscous: spines on pronotum large, acute, with a small acute tooth in the middle posteriorly: apex of scutellum and margin of hemelytra, white; beneath paler: feet pale (*Fabr.*).

♀. Body elongate-ovate, the sides nearly parallel: olive-brown, or brownish-testaceous, very thickly punctured: pronotum with the lateral angles produced into a short, acute, black spine, which is distinctly toothed on its hinder margin; a pale yellowish line runs across the disc of the pronotum from angle to angle: scutellum rather dark at the base, the apex white: hemelytra with the external margin whitish; membrane transparent: abdomen beneath punctured, with an irregular line down the middle, and the stigmata, black: legs, rostrum, and antennæ yellowish brown: the apex of the third joint of the antennæ, and the whole of the fourth, except the base, black: tarsi pitchy (*A. geometrica*, Dallas). Body, long, 14—15 mill.

Reported from Borneo, Java, Sumatra, Assam, Abyssinia, Mexico. The Indian Museum possesses specimens from Calcutta, Harmatti (at the foot of the Daphla hills, Assam), Sikkim (mihi).

Genus PICROMERUS, Am. & Serv.

Hist. Nat. Ins. Hém., p. 84 (1843); Dallas, List. Hem. i, p. 95 (1851); Walker, Cat. Het. i, p. 132 (1867):—*Cimex* subg. *Cimex*, Stål, Ofvers. K. V.-A. Förh., p. 497 (1867); En. Hem. i, p. 45 (1870).

Body flat: juga not, or scarcely, longer than the tylus, apical interior angle somewhat straight, scarcely acute, not produced inwards: posterior angles of pronotum acutely produced, flattened, dentate on the sides: venter, in ♂, without smooth, silky, stridulatory spots: anterior femora with 1—2 spines towards the tip; anterior tibiæ not dilated.

287. PICROMERUS OBTUSUS, Walker.

Picromerus obtusus, Walker, Cat. Het. i, p. 133 (1867) : Distant, A. M. N. H. (5 s.) iii. p. 45 (1879).

Lurid brown : oval, rather flat, minutely punctured ; dingy testaceous beneath ; punctures black : rostrum dingy testaceous : antennæ black, piceous towards the base, 4—5 joints whitish towards the base : pronotum crenulate along each side in front ; spines broad, obtuse, hardly forked at the tips : scutellum with a slight ridge which is widely forked towards the fore border : pectus and abdomen beneath with some black patches on each side, stigma of the pectus ochraceous : femora dingy testaceous, black-speckled ; tibiæ tawny, with black tips ; tarsi black : corium lurid, with blackish punctures and with a few small blackish marks : membrane aeneous (*Walker*). Body, long, 11—11½ mill.

Reported from N. India : very common in Sikkim (mihi).

288. PICROMERUS NIGRIVITTA, Walker.

Picromerus nigrivitta, Walker, Cat. Het. i, p. 133 (1867).

Dingy testaceous, elliptical, rather flat, thickly and minutely black speckled, livid beneath : head with the juga and tylus distinctly marked : rostrum tawny : antennæ black, piceous towards the base ; 4—5 joints pale yellow towards the base : pronotum with a pale tubercle on each side on the disc ; sides straight and serrated from the fore border to the spine, which is aeneous and truncate : scutellum with a slight forked ridge : pectus with ochraceous stigmata : abdomen beneath with a black stripe : legs livid, black-speckled, with a slight aeneous tinge : membrane aeneous (*Walker*). Body, long, 10½ mill.

Reported from Silhat.

289. PICROMERUS ROBUSTUS, Distant.

Picromerus robustus, Distant, A. M. N. H. (5 s.) iii, p. 48 (1879).

Has somewhat the elongated form of *A. spinidens*, but with the pronotum robust, much deflexed anteriorly, and body narrowed posteriorly : luteous, covered regularly and thickly with coarse brown punctures : tylus and juga equal in length ; eyes large, prominent, obscure fuscous ; rostrum luteous, with the tip pitchy ; antennæ with the 2—3 joints sub-equal, pale luteous, third joint pitchy at apex : pronotum much narrowed in front and widened posteriorly, with an indistinct median, longitudinal line ; a transverse row of four small luteous spots situated a little behind a somewhat obscure transverse ridge ; lateral angles, produced into long, black, pointed spines, toothed

behind, which give them the appearance of being emarginate at the apex: scutellum with a small luteous spot in each basal angle: corium with purplish reflections towards the apex; membrane fuscous with a large whitish spot on the outer and the inner border (size of these spots variable): body beneath luteous, punctured and mottled with brown; intermediate femora testaceous and the tibiæ brownish, with apex and tarsi dark fuscous (*Distant*). ♂, long, 11, exp. lat. angles pron. $6\frac{1}{2}$ mill.: ♀, long, 14, exp. lat. angles pron. 9 mill.

The ♀ varies in having the luteous spots above much more obscure and the legs luteous.

Reported from Sadiya (Assam), 350 feet.

Genus GLYPSUS, Dallas.

List Hem. i, p. 93 (1851); Stål, Hem. Afric. i, p. 62, 63 (1864); En. Hem. i, p. 47 (1870); Walker, Cat. Het. i, p. 132 (1867).

Body ovate: head flattish, jugæ a little longer than the tylus, somewhat contiguous at the apex, bucculæ moderately elevated: antennæ about half as long as the body, the second joint a little longer than the third, the fourth about equal to the second, the fifth shorter than the third: rostrum reaching the posterior coxæ, stout, the two apical joints of equal length, each a little shorter than the second: anterior lateral margins of pronotum crenulate before the middle, the lateral angles strongly spinose: scutellum rather broad, the posterior part narrowed hindwards, rounded at the apex; frena extended a little beyond the middle of the scutellum: sternal ridge broad, depressed, furrowed: venter, in ♂, without stridulatory sericeous spots, second segment armed at the base with a depressed tubercle, slightly prominulous forwards, sinuated at the apex: membrane with nine veins: first femora armed beneath with a spine towards the apex; anterior tibiæ quadrangular, not dilated exteriorly; inner spine rather large: tarsi 3-jointed, second joint very small, basal joint as long as the other two taken together.

290. GLYPSUS FUSCISPINUS, Stål.

Glypsus fuscispinus, Stål, En. Hem. i, p. 47 (1870).

♂. Weakly greyish-flavescent, distinctly punctured fuscous-ferruginous; antennæ weakly ferruginous: four very minute spots arranged in a transverse row before the middle, and the lateral angles of the pronotum, also a small impression on the basal angles of the scutellum, black: membrane sordid viaceous, apical spot fuscous. Stature almost of *G. conspicuus*, Westw., but the lateral angles of the pronotum are gradually acuminate, posteriorly near the apex, not, unless very

obsoletely, sinuated. Head scarcely narrowed before the lateral sinuses, distinctly punctured, smooth posteriorly and on the tylus, punctures on the tylus arranged in two rows of groups, and, on the posterior part, densely arranged in six rows of groups; juga with fuscous limbi, furnished in the middle with a somewhat smooth streak: lower side smooth, adorned with a lateral, punctulate, fuscous, streak: second joint of the antennæ shorter than the third: rostrum stout, piceous, first joint weakly sordid flavescent: pronotum rather densely punctured, punctures on the posterior part more obscure, anterior lateral margins slightly sinuate in the middle, obtusely crenulate before the sinus, lateral angles much produced outwards, acute, above obtusely carinate: scutellum and hemelytra densely and distinctly punctured, the scutellum furnished behind the middle with a very obsolete wrinkle or ridge; punctures on pectus and venter in groups; the spot on the pectus inclosing the furrow from the odoriferous orifices, fuscous: the dorsum of the abdomen, black-violaceous, punctulate; segments of the connexivum spotted black on the basal and apical angles, apical angles of the 2—6 ventral segments prominulous in a small tooth; spot on the sixth segment and the aual segment, black: median streak on the venter, smooth: no stridulatory spots: posterior femora obsoletely varied fuscous: furrow on tibiæ obscurely subsanguineous at the bottom (*Stål*). Long, 15; broad, 7; breadth of pronotum, 10 mill.

Reported from India.

Genus *PODISUS*, Herrich-Schäffer.

Wanz. Ins. ix, p. 296, 337 (1853); *Stål*, K. V.-A. Förh., p. 497 (1867); l. c., (3), p. 40 (1872); En. Hem. i, p. 48 (1870); Distant, Biol. Cen. Am. Hem. i, p. 36 (1879):—*Asopus*, Fieb., Eur. Hem. p. 348 (1861).

Stål (En. Hem. l. c.) distributes the species assigned by him to this genus amongst the subgenera—*Troilus*, *Apateticus*, *Apoecilus*, *Podisus*, and *Tylospilus*, of which only *Troilus* appears to occur in India. Subsequently, he raises *Troilus* to a genus with *Asopus luridus*, Fabr., as the type. Venter without stridulatory spots, spinose at the base: first pair of femora unarmed: juga rounded at the apex, distinctly longer than the tylus: bucculæ very slightly elevated, gradually evanescent hindwards: frena extended beyond the middle of the scutellum.

291. *PODISUS LURIDUS*, Fabricius.

Cimex luridus, Fabr., Syst. Ent. p. 701 (1775); Spec. Ins. ii, p. 345 (1781); Mant. Ins. ii, p. 283 (1787); Gmelin, ed. Syst. Nat. i (4), p. 2136 (1788); ? Wolf, Ic. Cim. p. 130, t. 13, f. 130 (1804).

Cimex elector, Fabr., Ent. Syst. iv, p. 98 (1794); Syst. Rhyng. p. 160 (1803).

Arma lurida, Hahn, Wanz. Ins. i, p. 97, t. 15, f. 53 (1831); Dallas, List Hem. i, p. 96 (1851); Walker, Cat. Het. i, p. 134 (1867).

Pentatoma luridum, Herr.-Schäff., Nom. Ent. i, p. 56, 92 (1835).

Asopus luridus, Burm., Handb. Ent. ii (i), p. 379 (1835); Herr.-Schäff., Wanz. Ins. vii, p. 114 (1844); Gorski, Anal. Ent. p. 117 (1852); Fieber, Eur. Hem., p. 348 (1861); Doug. & Scott, Brit. Hem. i, p. 94, t. 3, f. 6 (1865).

Pentatoma sublurida, Westwood, Hope, Cat. Hem. i, p. 41 (1837).

Arma luridum, Kolenati, Mel. Ent. iv, p. 40 (1846).

Asopus (Podisus) luridus, Flor, Rhynch. Liv. i, p. 95 (1860).

Podisus (Troilus) luridus, Stål, Hem. Fabr. i, p. 17 (1868); En. Hem. i, p. 48 (1870).

Var. *angusta*, Reuter, Berlin Ent. Zeit. xxv, p. 156 (1881).

Podisus luridus, Mulsant, Pun. France, Pent., p. 347 (1866); Saunders, Trans. Ent. Soc., p. 124 (1875); J. Sahlb., K. V.-A. Handl. xvi (4), p. 15 (1879).

Antennæ black, second joint yellow before the apex: clypeus emarginate: pronotum obtusely spinose, above greyish, beneath flavescens: scutellum greyish, paler at the apex: hemelytra greyish with a median fuscous spot: body fuscous, with a large, distinct, deep-black point before the anus: wings deep black, with a pale marginal spot: feet greyish (*C. elector*, Fabr.). The variety *sublurida*, described by Westwood, has the femora obscure at the apex, antennæ fuscous, apex of fourth joint fulvous, and a large spot before the anus. Long, $10\frac{1}{2}$ mill. Saunders (l. c.) describes it thus:—'Yellowish-brown, closely punctured with bronzy punctures: head, sides of pronotum, and connexivum, bronzy-green, the latter with red, transverse spots; sides of the pronotum roughly and unevenly denticulate in front, posterior angle much produced: antennæ black, apex of fourth joint widely red: legs pale, spotted black. Long, $10\frac{1}{2}$ mill.

Reported from nearly all Europe, India.

Genus ASOPUS, Burmeister, Stål.

Burmeister, Nova Acta Acad. Leop. xvi, Suppt. p. 292 (1834); Handb. Ent. ii (i), p. 377 (1835); Am. & Serv., Hist. Nat. Ins. Hém. p. 83 (1843); Stål, Hem. Afric. i, p. 63 (1864); En. Hem. i, p. 56 (1862). Includes *Amyotea*, Ellenr., Nat. Tijds. Ned. Ind., xxiv, p. 137 (1862).

Posterior angles of pronotum obtuse, not spinose: ventral spine obtuse, short, hardly reaching insertion of posterior feet: all femora unarmed: tibiæ unarmed, neither foliated nor dilated: last joint of rostrum very short. Differs from *Canthecona* in the unarmed pronotum and femora.

292. ASOPUS MALABARICUS, Fabricius.

Cimex malabaricus, Fabr., Syst. Ent., p. 718 (1775); Spec. Ins. ii, p. 363 (1781); Mant. Ins. ii, p. 298 (1787).

Cimex mactans, Fabr., Spec. Ins. ii, p. 366 (1781); Mant. Ins. ii, p. 301 (1788).

Lygæus malabaricus, Fabr., Ent. Syst. iv, p. 151 (1794); Syst. Rhyng., p. 219 (1803).

Lygæus mactans, Fabr., Ent. Syst. iv, p. 161 (1794); Syst. Rhyng., p. 227 (1803).

Cimex oculatus, Fabr., Ent. Syst. Suppt., p. 535 (1798).

Lygæus argus, Fabr., Syst. Rhyng., p. 217 (1803).

Asopus argus, Burm., Nova Acta Acad. Leop. xvi, Suppt. p. 293, t. 41, f. 6 (1834).

Asopus mactans, Dallas, List Hem. i, p. 107 (1851); Voll., Faun. Ent. l'Arch. Ind. Néerl. iii, p. 12 (1868).

Asopus dystercoides, Ellenr., Nat. Tijds. Ned. Ind., xxiv p. 137, f. 2, 3, ♂ (1802); Walker, Cat. Het., i, p. 146 (1867).

Asopus nigripes, Ellenr., l. c., p. 138, f. 4, 5, ♀ (1862); Walker, l. c. i p. 146 (1867).

Asopus malabaricus, Stål, En. Hem. i, p. 56, 230 (1870).

Head rufescent: antennæ black: pronotum rufous, varied cinereous, with two black spots anteriorly: scutellum large, rufous with two large black spots at the base: wings black: abdomen pale, with large cyaneous spots on both sides (*L. malabaricus*, Fabr.). Head pale rufescent: antennæ black: pronotum black, paler anteriorly, with two black spots: scutellum rufous with two black spots: hemelytra rufous; wings black: beneath flavescent with cyaneous bands (*L. mactans*, Fabr.). Red or red-testaceous: two elliptical transverse spots on the anterior part of the pronotum and two on the anterior angles of the scutellum, membrane, apex of femora, tibiæ, tarsi, antennæ, except the first joint, black: first joint of the antennæ, red: face and rostrum reddish: pectus margined white and red, with rows of black spots; venter margined white and red, banded black, with five bands narrower in the middle: femora rufous: abdomen laterally not extending much beyond the hemelytra, not longer: sometimes two spots on the head (*Ellenr.*). Long, 12—13 mill. I have a specimen of *A. nigripes*, *Ellenr.*, from Bengal.

Reported from India, Sahasram (Bengal), Calcutta (mihi), Java, Borneo, Sumatra, Philippines.

Species of uncertain position.

293. *Arma velata*, Walker, Cat. Het. iii, p. 532 (1868).

Ferruginous, nearly elliptical, thickly and minutely punctured; punctures black, dull ochraceous beneath: head mostly blackish above:

eyes rather prominent: antennæ ochraceous; third joint hardly shorter than the second; fourth longer than the third and than the fifth: pronotum with an irregular black band near the fore border; sides indistinctly crenulated; spines black, long, stout, acute: scutellum blackish towards the base, except on each side; tip pale yellow: abdomen beneath with a broad black stripe on the apical segment: legs ochraceous, stout: membrane brown (*Walker*). Long, $10\frac{1}{2}$ mill.

Reported from India, closely allied to *A. turbida*, Walker, but the spines of the pronotum are longer and more acute.

294. *Arma turbida*, Walker, Cat. Het. i, p. 140 (1867).

Piceous, elliptical, thickly and minutely punctured; black beneath: head less than one-fourth of the breadth of the pronotum; juga and tylus of equal length; antennæ slender: pronotum with a very slight longitudinal ridge; sides crenulated; spines prominent, acutely angular: scutellum with a slight longitudinal ridge towards the apex: abdomen purple, blue at the tip: ventral spine not extending beyond the last coxæ: legs piceous, stout, setulose: membrane cinereous, partly clouded with brown (*Walker*). Long, $11\frac{1}{2}$ mill.

Locality unknown, India?

Add the following synonymy to that given in these notes:—

J. A. S. B., Pt. II, p. 187, 1886, No. 105, *Eurygaster maurus*, Linn., add:—

cinerea and *Schranki*, Goeze; *testudinaria* and *cappata*, Fourer, according to Puton: also.

Cimex frischii, Gmelin, Syst. Nat. i (4), p. 2134 (1792).

Var. *E. nigra*, Fieber, Eur. Hem. p. 370 (1861).

Var. *E. signata*, Fieber, l. c.

J. A. S. B., Pt. II, p. 30, 1887, No. 169, *Carpocoris nigricornis*, Fabr., add:—

Cimex purpureipennis, De Géer, iii, p. 258 (1773).

Cimex corneus, Gmelin, Syst. Nat. i (4), p. 2134 (1792).

P. 42. No. 186:—*Eysarcoris inconspicuus*, Herr.-Schäff., add:—

Eysarcoris helferi, Fieber, Eur. Hem. p. 332 (1861).

Eysarcoris epistomalis, Muls. and Rey., Pun. France, 177 (1866).

Pentatoma pusilla, Costa, Cim. Cent. II, decas 6-10, 24.

Eysarcoris pseudoaeneus, Jakow., Hor. Soc. Ent. Ross., vi, p. 117: Bull. Soc. Mosc. 48 (i), p. 238 (1874).

P. 52 No. 199:—*Eurydema festivum*, Linn., transfer:—

Var. *albiventris*, Jak., to *E. dominulum*, Scop., and add:—

Var. *maracandicum*, Oschan, *Strachia id.*, Bull. Soc. Mosc. 48 (i), p. 239 (1874).

Var. *decoratum*, Herr.-Schäff, *Pentatoma, id.*, Faun. Germ. 116: Walker, Cat. Het. ii, p. 313 (1867).

Strachia pustulata, Fieber, Weitenw. Beitr. i, p. 352, t. 2, f. 3', (1836): Walker, l. c.

Strachia decorata, Muls. and Rey., Pun. France, Pent. p. 214 (1866).

Var. *mehadiense*, Horvath, Term. füz. v, p. 219 (1881): Rev. d'Ent. vii, p. 187, (1888).

Var. *Christophi*, Jak., Horvath, l. c.

P. 53, No. 200:—*Eurydema dominulum*, Scop., add:—

Cimeæ corâiger, Goeze, Reuter, Rev. Men. d'Ent. iii, p. 68 (1883).

Eurydema ornatum, F. Sahlb., Mon. Geoc. Fenn., p. 24 (1848).

Pentatoma fimbriolata, Germar, Faun. Ins. 17. For '*bhesgica*,' read '*lhesgica*' in heading.

P. 54, No. 202:—*Eurydema ornatum*, Linn., add:—

Var. *Strachia pectoralis*, Fieber, Eur. Hem., p. 342 (1861).

Var. *Strachia dissimilis*, Fieber, do.

Var. *Eurydema ventralis*, Kolenati, Mel. Ent. iv, 26 (1846).

J. A. S. B., Pt. II, p. 36, 1887, in line 6 from top of page, for '*basal*,' read '*lateral*.'

Do. p. 165, No. 80, in line 5 of description, for '*head*,' read '*body*.'

Do. p. 168, No. 82, in line 10 of description, for '*joining*,' read '*forming*.'

Do. p. 169, line 9 from top, for '*an oblique stria*,' read '*and some oblique striæ*.'

Do. p. 172, No. 86, add to title, '*PATRICIUS*.'

Do. p. 177, line 18 from top of page, for '*within*,' read '*inward of*.'

Do. p. 189, No. 107, in title, for '*CALLIDEA*,' read '*CHRYSOCORIS*.' I have since received a specimen from Assam.